

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.





Agriculture



Economic  
Research  
Service

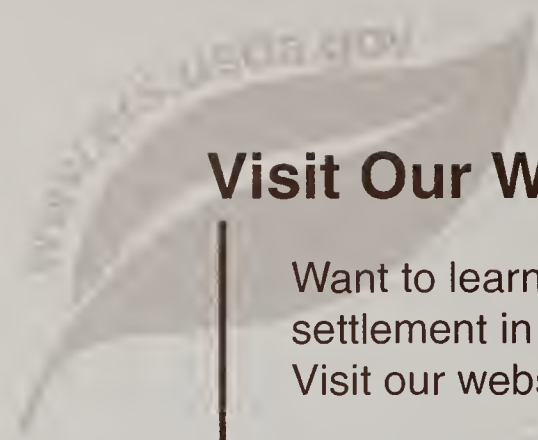
Rural  
Development  
Research  
Report  
Number 99

# New Patterns of Hispanic Settlement in Rural America

William Kandel  
John Cromartie







## Visit Our Website To Learn More!

Want to learn more about patterns of Hispanic settlement in rural America?

Visit our website at **[www.ers.usda.gov](http://www.ers.usda.gov)**.

You can also find additional information, both paper and electronic, about ERS publications, databases, and other products at our website.

## It's Easy To Order Another Copy!

Just dial 1-800-999-6779. Toll free in the United States and Canada.

Ask for *New Patterns of Hispanic Settlement in Rural America* (RDRR-99)

### National Agricultural Library Cataloging Record:

Kandel, William

New patterns of Hispanic settlement in rural America.

(Rural development research report ; no. 99)

1. Hispanic Americans--Population. 2. Hispanic Americans--Government policy--United States. 3. Rural population--United States. 4. Land settlement patterns--United States.

5. Sociology, Rural--United States.

I. Cromartie, John. II. United States. Dept. of Agriculture. Economic Research Service.

III. Title.

HN59.2

---

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Ave., SW, Washington, DC 20250-9410, or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

United States  
Department  
of Agriculture

Rural  
Development  
Research  
Report  
Number 99

May 2004



A Report from the Economic Research Service

[www.ers.usda.gov](http://www.ers.usda.gov)

# New Patterns of Hispanic Settlement in Rural America

**William Kandel and John Cromartie**

## Abstract

Since 1980, the nonmetro Hispanic population in the United States has doubled and is now the most rapidly growing demographic group in rural and small-town America. By 2000, half of all nonmetro Hispanics lived outside traditional settlement areas of the Southwest. Many Hispanics in counties that have experienced rapid Hispanic growth are recent U.S. arrivals with relatively low education levels, weak English proficiency, and undocumented status. This recent settlement has increased the visibility of Hispanics in many new regions of rural America whose population has long been dominated by non-Hispanic Whites. Yet within smaller geographic areas, the level of residential separation between them increased —i.e., the two groups became less evenly distributed—during the 1990s, especially in rapidly growing counties. Hispanic settlement patterns warrant attention by policymakers because they affect the well-being of both Hispanics and rural communities themselves.

**Keywords:** Hispanics, Latinos, rural population, nonmetro population, new immigrant destinations, settlement patterns, residential separation, segregation, rural communities, rural diversity

**Contents**

Summary .....iii

Introduction .....1

Past Research on Hispanic Settlement Patterns .....4

Data and Methods .....7

Hispanic Geographic Distribution Since 1980 .....9

The New Rural Hispanic Population .....16

Residential Settlement Patterns of Hispanics  
and Non-Hispanic Whites .....24

    Measuring Residential Separation .....24

    Residential Separation among Counties Within the Nation .....24

    Residential Separation in Places Within Counties .....27

    Residential Separation among Neighborhoods Within Places .....28

Conclusions and Implications .....31

References .....34

Appendix: Rural Hispanics in Metro Counties .....41

**Cover photos:** Back: bottom photo by William Kandel, ERS/USDA; all others by Ken Hammond, USDA. Front, clockwise from top: William Kandel, ERS/USDA; Ken Hammond, USDA; Bob Nichols, USDA.



## Summary

Although Hispanics made up just 5.5 percent of the nonmetropolitan U.S. population in 2000, they accounted for over 25 percent of nonmetro population growth during the 1990s. As Hispanics increasingly populate communities in nonmetro counties outside of the Southwest, they have become a visible presence in many different regions of the Nation.

This report uses 1990 and 2000 Census data and a typology of county types—based upon their Hispanic population growth and composition—to examine recent Hispanic settlement patterns, compare characteristics of Hispanics with non-Hispanic Whites, and analyze residential separation between those two groups at the county, place, and neighborhood levels.

**Nonmetro Hispanic growth in the 1990s was much greater than in previous decades and spread throughout the Southeast, Midwest, and Northwest.** Hispanics remain among the most urbanized ethnic/racial groups in America, with over 90 percent living in metro areas in the year 2000. Moreover, they continue to be concentrated in the Southwest. But, by 2000, for the first time, half of all nonmetro Hispanics lived outside the Southwest, increasingly in areas of the Midwest and Southeast. While almost all 2,289 nonmetro counties experienced Hispanic population growth, 30 percent of this growth occurred in 149 “high-growth Hispanic” counties.

**Hispanic newcomers have forged communities in nonmetro areas unaccustomed to seeing large numbers of foreign-born, particularly in the Southeast and Midwest.** Hispanics in these counties include disproportionate numbers of undocumented young men from rural communities in economically depressed regions of Mexico. Such recent migrants typically have relatively less formal education and often speak little English. Despite these disadvantages, employment rates among Hispanics in nonmetro, high-growth Hispanic counties exceed those of all other nonmetro Hispanics and non-Hispanic Whites.

**Across all nonmetro counties nationally, residential separation between Hispanics and non-Hispanic Whites decreased.** Hispanic communities grew in many nontraditional destinations throughout the country, particularly in counties in the Southeast and Midwest previously unaccustomed to large numbers of foreign-born residents.

**Among places (small cities, towns, etc.) within nonmetro counties, residential separation between Hispanics and non-Hispanic Whites increased slightly.** On average, Hispanic population growth was concentrated within incorporated places, while non-Hispanic White population growth was higher outside of them. While high-growth Hispanic counties experienced an especially large growth in residential separation between Hispanics and non-Hispanic Whites, there was little or no increase in other county types.

**At the neighborhood level within nonmetro places, residential separation between Hispanics and non-Hispanic Whites increased noticeably.** Residential separation increased the most in high-growth Hispanic counties, despite the rapid growth of both the Hispanic population and non-Hispanic White population. While neighborhood separation was greater in metro areas than nonmetro areas in 2000, nonmetro levels increased at a higher rate during the 1990s.





# Introduction

In the past two decades, the Hispanic population in rural and small-town America has doubled from 1.5 to 3.2 million and now makes up the most rapidly growing segment of nonmetropolitan (nonmetro) county residents.<sup>1</sup> Despite accounting for just 3 percent of the nonmetro county population in 1980, Hispanics contributed over 25 percent of the total nonmetro population increase and over 50 percent of the nonmetro minority population increase during the past two decades. Patterns of Hispanic growth have varied by decade. During the 1980s, when total nonmetro population growth was barely discernible, the nonmetro Hispanic population grew by 27 percent. During the “rural rebound” of the 1990s, when the total nonmetro population grew by 10 percent, Hispanic growth more than doubled to 67 percent (appendix table 2). Emerging residential patterns from this accelerated Hispanic population growth affect hundreds of small towns and rural areas across America.

This report examines Hispanic population growth and changing settlement patterns in rural areas and the consequences and implications of such changes for rural communities. Such patterns are reflected in the following trends from 1990 to 2000:

1. The nonmetro Hispanic population more than doubled in 20 mostly Southern and Midwestern States, with growth rates ranging from 120 to 416 percent (appendix table 2).
2. Of 2,289 nonmetro counties, the number in which Hispanics make up at least 1 percent of the population grew by 636 from 882 to 1,518; the number in which Hispanics make up at least 10 percent grew by 86, from 230 to 316.
3. Since 1990, Hispanic population growth has prevented overall population decline in over 100 nonmetro counties, many of which lost population during the 1980s.
4. Half of nonmetro Hispanics now reside outside the Southwest, the traditional settlement area.

A significant proportion of Hispanics in new nonmetro destinations outside the Southwest are recent U.S. arrivals with relatively low education levels, weak English proficiency, and undocumented status who are employed in low-wage jobs with limited economic mobility. Consequently, they are more likely to reside in isolated low-income areas (Atilas and Bohon, 2002, forthcoming; Chavez, 1998; Dale et al., 2001; General Accounting Office, 1998; Gouveia and Stull, 1995; Griffith, 1995).

Traditional models of U.S. immigrant incorporation meld cultural assimilation with economic and spatial mobility. Immigrants and their children who initially cluster for mutual support gradually adopt the host country’s culture, improve their economic circumstances, and leave such ethnic concentrations for housing among English-speaking native residents (Burstein, 1981; Gordon, 1964; Massey, 1985; Nelli, 1970; Thernstrom, 1973; Ward, 1971).

<sup>1</sup> We use the terms “rural” and “non-metro” interchangeably throughout this report as an editorial convention. Technically, rural areas are defined by the Census, while nonmetro counties are defined by the Office of Management and Budget. The two geographic spheres overlap somewhat but remain quite distinct.

For some, residential location is subject to financial constraints. Others choose to live in particular areas to be among people of similar ethnic or racial backgrounds while possessing the economic means to live in more affluent and better-served areas (Massey and Denton, 1993). Nevertheless, literature on racial and ethnic segregation documents historical institutional arrangements, public policies, and discriminatory practices that isolated specific native and foreign-born groups and continue to be felt by subsequent generations throughout the United States (see Myrdal, 1944; Spear, 1967; Zunz, 1982; Montejano, 1987; Massey and Denton, 1988, 1993).

Residential separation in rural America warrants attention by policymakers because of its impact on the well-being of minority groups and rural communities themselves.<sup>2</sup> Regardless of how such residential patterns occur, they strongly influence socioeconomic well-being. Many characteristics of daily life depend on location, including the quality of public services and schools, personal safety, and home values. These resources often accrue to people according to their socioeconomic achievement or status, and, in turn, influence economic mobility prospects for themselves and their children.

While much evidence suggests socioeconomic improvement with second- and third-generation Hispanics, rural communities face the current and critical issue of social, economic, and civic incorporation for recent Hispanic arrivals. Such integration is particularly important as Hispanics become the Nation's largest and fastest growing minority group, with new arrivals increasingly populating nonmetro counties. According to the U.S. Department of Labor, foreign-born workers constituted nearly half of the net increase in the U.S. labor force in the last half of the 1990s (Mosisa, 2002).

Policymakers and local officials have increasingly been assisting these new residents to become integrated and effective citizens (Jones, 2003). If these issues are ignored, rural areas may face the prospect of harboring growing pockets of disadvantaged residents whose children already make up a significant portion of future employees, taxpayers, and citizens. Second-generation children of immigrants constitute a group whose numbers in the past decade have grown roughly seven times faster than children of native-born parents (Hernandez and Charney, 1998). The majority of Hispanic children are citizens because they were born in the United States. Yet, like their parents, they face significant challenges in attaining economic well-being, social integration, and health care (Portes and Rumbaut, 2001; Hernandez, 1999; Hernandez and Charney, 1998).

This report uses data from the 1980, 1990, and 2000 Censuses of Population to explain recent Hispanic residential patterns during a decade of rapid population growth and dispersion in nonmetro counties. Our study considers three broad research questions:

*What factors have affected Hispanic population growth and dispersion in rural areas?*

We examine nonmetro population distribution and change to identify both established and new, rapidly growing Hispanic destinations. Nonmetro counties with rapidly growing Hispanic populations are scattered throughout most of the Nation, and we expect their residen-

---

<sup>2</sup> Throughout this report, we refer to spatial distance between non-Hispanic Whites and Hispanics using the term "separation" rather than "segregation." However, much of the literature we reference in this report uses the term "segregation," which refers to institutionalized arrangements which through a variety of social, legal, or political means result in a group's spatial isolation from others. Although such arrangements historically characterized the urban and rural experience of U.S. Blacks and Hispanics, it remains unclear the extent to which they describe recent residential settlement patterns of Hispanics in rural communities (Alba and Logan, 1993; Allen and Turner, 1996).



tial patterns to differ from those of established Hispanic counties, mostly in the Southwest.

*Are socioeconomic characteristics of Hispanics associated with recent settlement patterns?*

Because relative socioeconomic position influences residential separation, we compare characteristics of Hispanics with the dominant nonmetro group—non-Hispanic Whites—across a range of county types.

*Was residential separation affected by recent patterns of nonmetro Hispanic population growth?*

We analyze residential separation at the county, place, and neighborhood levels. We compare changing levels of separation in established and newly emerging Hispanic counties because such a comparison provides useful insights on the prospects for social and economic integration of rural Hispanics. We also contrast findings for nonmetro and metro counties to provide a relative basis for understanding the scale of residential settlement patterns in rural areas compared with more familiar urban patterns.

At the end of this report, we discuss some implications of our findings for the incorporation of recent Hispanic arrivals and steps that rural communities are taking to facilitate this process. These implications are not addressed in our analysis but are based upon a large existing body of research.

## Past Research on Hispanic Settlement Patterns

In the past decade, three concurrent trends contributed not only to Hispanic population growth in nonmetro areas outside the Southwest, but also to more permanent Hispanic settlement generally. First, labor market saturation and weak economies in traditional urban destinations, such as Los Angeles, encouraged Hispanics to seek work in nontraditional areas (Fennelly and Leitner, 2002; Suro and Singer, 2002). Second, increased U.S. border enforcement at certain popular crossing points effectively dispersed a well-established migration of international labor out along the entire border, directing migrants<sup>3</sup> to new U.S. destinations (Durand et al., 2000). Third, employment availability and corporate recruitment helped steer both domestic and foreign migration to new nonmetro destinations (Johnson-Webb, 2002; Krissman, 2000).

Recent border enforcement policies have increased the likelihood that labor migrants to metro and nonmetro counties settle permanently in the United States. In past decades, nonmetro Hispanic migrants worked primarily in agriculture and stayed for relatively short periods. Less stringent border enforcement policies permitted migrants to enter the United States during times of peak labor demand through a *de facto* guest worker program that provided a flexible supply of labor and allowed migrants to return to their families for a significant portion of each year. Short stays in the United States meant that migrants' families were more likely to remain in their countries of origin. Increased border enforcement in the early 1990s raised the financial expense of migration and paradoxically made return migration more difficult. Consequently, many migrants now extend their stays and either bring or send for family members, increasing the likelihood of permanent settlement (Massey et al., 2002).

Stable employment also fosters permanent settlement. While the majority of workers in agricultural crop production are Hispanic, their movement into other industrial sectors is likely to yield higher wages and greater job stability (Kandel, 2002; Martin and Martin, 1994). Hispanic population growth throughout the nonmetro United States—especially in the South and Midwest—reflects a growing presence in industries that require low-skill workers. These include meat processing (Broadway, 1994; Gouveia and Stull, 1995; Grey, 1995; Guthey, 2001; Kandel and Parrado, forthcoming), carpet manufacturing (Engstrom, 2001; Hernández-León and Zúñiga, 2000), oil extraction (Donato et al., 2001), timber harvesting (McDaniel and Casanova, 2003), construction (Stepick et al., 1994), and fish processing (Broadway, 1995; Griffith, 1995).

Hispanics face the broader issues of economic mobility and social integration once they are more permanently settled (General Accounting Office, 1998; Salamon, 2003). Demographic characteristics, such as age, gender, and household structure, and earnings-related characteristics, such as education and English language skills, become increasingly important (Kandel, 2003). Personal outcomes are often closely related to time spent in the United States, with more years typically translating into greater employment mobility, higher economic standing, increased English language compe-

<sup>3</sup> In this report, we use the term “migrant” to represent Hispanics who have arrived recently in the United States. As such, migrants may include immigrants who possess legal documentation to visit, work, or live in the United States, as well as undocumented migrants who do not.



tence, and other benefits (Neidert and Farley, 1985). For example, more time in the United States increases language proficiency, which makes individuals more attractive to prospective employers and affords them greater opportunity to find employment outside of their immediate social networks and local labor markets (Borjas, 1999; Chiswick and Miller, 1995; Phillips and Massey, 1999).

Demographic and earnings-related characteristics are key determinants of socioeconomic integration through their influence on residential settlement patterns. Higher median income, fewer female-headed households, lower high school dropout rates, and other socioeconomic factors have been shown to contribute to lower neighborhood segregation in metro settings (Allen and Turner, 1996; Haverluk, 1998; Massey, 1990). Hence, to the extent Hispanics can earn living wages and increase their economic mobility, they are more likely to integrate spatially.

In turn, residential proximity of Hispanics to relatively more affluent non-Hispanic Whites influences incorporation by providing exposure to higher levels of public services and economic, social, and cultural resources that function as public goods (Farley and Allen, 1987; Massey et al., 1987b, 1991; Schneider and Logan, 1982). It is widely acknowledged that neighborhoods, towns, and cities control resources, such as schooling, health care, and other public services in ways that generally benefit their own residents. These same residents also accrue intangible benefits from their neighborhoods, such as access to useful information, social and professional networks, and increased personal safety (Coleman, 1988; Granovetter, 1973; Portes, 1998). Numerous studies of residential segregation in urban settings demonstrate significant disadvantages accruing to minority groups residing in concentrated and isolated enclaves and ghettos, and to their children who attend different schools from non-Hispanic Whites (Anderson and Massey, 2001; Kozol, 1991; Massey and Denton, 1993; Wilson, 1987).

Available analysis of nonmetro residential separation offers mixed findings. Those who examine residential patterns between Blacks and Whites find that, in recent decades, Whites are increasingly settling outside of nonmetro towns and cities, thereby accelerating minority population concentration in towns and cities (Cromartie and Beale, 1996; Lichter et al., 1986; Lichter and Heaton, 1986). Analysis of Hispanic settlement patterns in nonmetro counties in Texas suggests that population growth disrupts established structural relationships and roles that inhibit an egalitarian distribution of resources, including the allocation of housing (Hwang and Murdock, 1983; Murdock et al., 1994).

On a much broader geographic scale, Frey and his colleagues have argued that natives have responded to recent influxes of immigrants by migrating out of large metro areas and into nonmetro areas (Frey, 1995, 1996; Frey and Liaw, 1998a, 1998b). Empirical tests at the State and regional levels support Frey's "demographic balkanization" thesis in California (Allensworth and Rochín, 1998; Clark, 1998), but refute it in metropolitan areas throughout the country (Card and DiNardo, 2000; Wright et al., 1997). While such metro settlement patterns within national regions extend beyond the geographic scope of this analysis, Frey's results suggest that rural

residential separation may occur as non-Hispanic Whites move to counties and areas less populated by new migrants (Frey, 1998).

This report contributes to the literature on rural residential separation and segregation, using the latest available Census data to examine settlement patterns at multiple geographic units of analysis. We create a typology of county types that highlights settlement patterns in new and rapidly growing rural Hispanic destinations. Our report surveys and contrasts demographic and socioeconomic characteristics of Hispanics living in these different counties and analyzes changing residential patterns between Hispanics and non-Hispanic Whites in rural and small-town America over the past decade. We examine factors affecting Hispanic population growth and dispersion in rural areas, socioeconomic characteristics of Hispanics associated with recent settlement patterns, and the relationship between new settlement patterns and residential separation. Finally, we discuss some consequences of these changing Hispanic geographic and spatial patterns for rural residents and their communities. This report therefore represents the first national survey emphasizing nonmetro Hispanic residential settlement and separation.



## Data and Methods

We use population data on race and ethnicity and geographic characteristics from the 1980, 1990, and 2000 decennial Censuses to examine socioeconomic characteristics, population dispersion, and settlement patterns among U.S. Hispanics and non-Hispanics, and their effects on residential separation within rural communities. Hispanics and non-Hispanic Whites are distinguished on the basis of self-identifying race and Hispanic ethnicity questions on Census questionnaires. All people classifying themselves as Hispanic were considered Hispanic for this analysis, regardless of race.

Race and ethnicity questions are part of the 100-percent “short form” sample of the decennial Census and are available at the full range of Census geography down to the block level. We also use data on migration and socioeconomic characteristics derived from sample data provided by the 1990 and 2000 “long-form” questionnaires.<sup>4</sup> We examine four geographic levels of data: regions, counties, incorporated and Census-defined places, and Census tracts. We alter the four standard Census regions (Northeast, Midwest, South, and West) by identifying for separate analysis a five-State Southwest region that includes Arizona, California, Colorado, New Mexico, and Texas.

We use nonmetro counties to approximate “rural and small-town America,” and include among them all counties that fall outside of Metropolitan Statistical Areas (MSAs) as defined in 1993, based on the 1990 Census.<sup>5</sup> MSAs, as defined by the Office of Management and Budget, include either “core” counties containing a city of 50,000 or more, or an urbanized area of 50,000 or more with a total population of at least 100,000 in the MSA. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties, as determined by population and commuting data. We use the terms “rural” and “nonmetro” interchangeably to refer to people living outside of MSAs.

The introduction of multiple race categories in the 2000 Census complicates our comparison of racial and ethnic groups since 1990. Roughly 6.7 million people self-identified with 2 or more race groups in 2000. Rather than omit these cases from our residential separation analysis, we assigned them to one race following methodologies used by other researchers facing the same predicament (Allen and Turner, 2001). Accordingly, non-Hispanic Whites in 2000 include those that also checked American Indian or Other, while non-Hispanic Blacks include those that also indicated White, American Indian, Asian, or Other. We believe this approach does not significantly compromise our results because multi-race individuals make up less than 2.5 percent of both the nonmetro and total U.S. populations.

Finally, we emphasize that the term “Hispanic” in this report (and in general) refers to an extremely diverse population that possesses roots throughout the Caribbean, Latin America, and Europe, encompasses many socioeconomic strata, includes recent migrants and citizens of pre-Anglo settlement, and resides in geographically disperse urban and rural areas throughout all 50 of the United States. This report includes information on

---

<sup>4</sup> The “long form” Census questionnaire is administered to an average of one in six households and includes more detailed questions than the “short form” questionnaire that is administered to all other U.S. households.

---

<sup>5</sup> We use the metro-nonmetro classification as defined at the beginning of the 1990-2000 analysis period because some of the rapid growth we describe occurred in counties that subsequently became metro, and thus would have been missed using the later definition. The new set of metro and nonmetro counties—based on the 2000 Census and released in June 2003—uses different criteria and contains 253 fewer nonmetro counties than in 1990 (Cromartie, 2003).

all U.S. Hispanics, but focuses specifically on Hispanics in rapidly growing nonmetro counties who constitute a population we expect foreshadows demographic trends in rural America for the foreseeable future. To provide a context for understanding Hispanic conditions and characteristics, we frequently compare Hispanics with non-Hispanic Whites, who account for over 85 percent of all nonmetropolitan residents.



## Hispanic Geographic Distribution Since 1980

Over 90 percent of U.S. Hispanics live in metro areas, and 8 of the 10 largest U.S. cities have populations that are over 25 percent Hispanic (Guzman, 2001). Domestic migration from the 1950s through the 1980s was dominated by large rural-to-urban flows, as thousands of Hispanics left farm jobs for better paying city jobs (Bean and Tienda, 1987). Census 2000 data indicate that half of all U.S. Hispanics live in just 16 cities, most notably the “gateway” cities of Los Angeles, Chicago, New York, Miami, and Houston (Suro and Singer, 2002).

Regionally, both metro and nonmetro Hispanics are highly concentrated in the Southwest; in 1990, over 60 percent lived in just five States: Arizona, California, Colorado, New Mexico, and Texas. Historically, Hispanics established agricultural communities in the Southwest while it was still part of Mexico and later provided critical labor inputs in the development of the region’s irrigated agriculture. Many moved to cities as part of the general farm exodus following World War II, yet Hispanics continue to dominate the Nation’s agricultural labor force to this day. A sizable proportion of Hispanic agricultural laborers, especially in California and Arizona, live in metro counties and thus are not included in this analysis of nonmetro population change (see Appendix, “Rural Hispanics in Metro Counties”).

Urban and regional concentration began to weaken in the 1980s as Hispanics dispersed in unprecedented numbers to new destinations. Large Hispanic populations emerged in smaller metro areas as growth rates exceeded those of gateway cities (Suro and Singer, 2002), and sizable Hispanic communities reached nonmetro areas as well (Rochin, 1995). Hispanics constituted less than 5 percent of the total nonmetro population in 1990 but accounted for over 25 percent of its growth from 1990 to 2000. The growth rate of the nonmetro Hispanic population in the 1990s (67.3 percent) more than doubled from the previous decade (26.7 percent) and far outpaced that of nonmetro non-Hispanics (8.1 percent) (fig. 1); it even exceeded that of metro Hispanics (Cromartie and Kandel, 2002). Urban concentrations of Hispanics in 2000 still exceeded 90 percent, but the percentage of U.S. Hispanics residing in nonmetro counties increased between 1990 and 2000 (table 1).

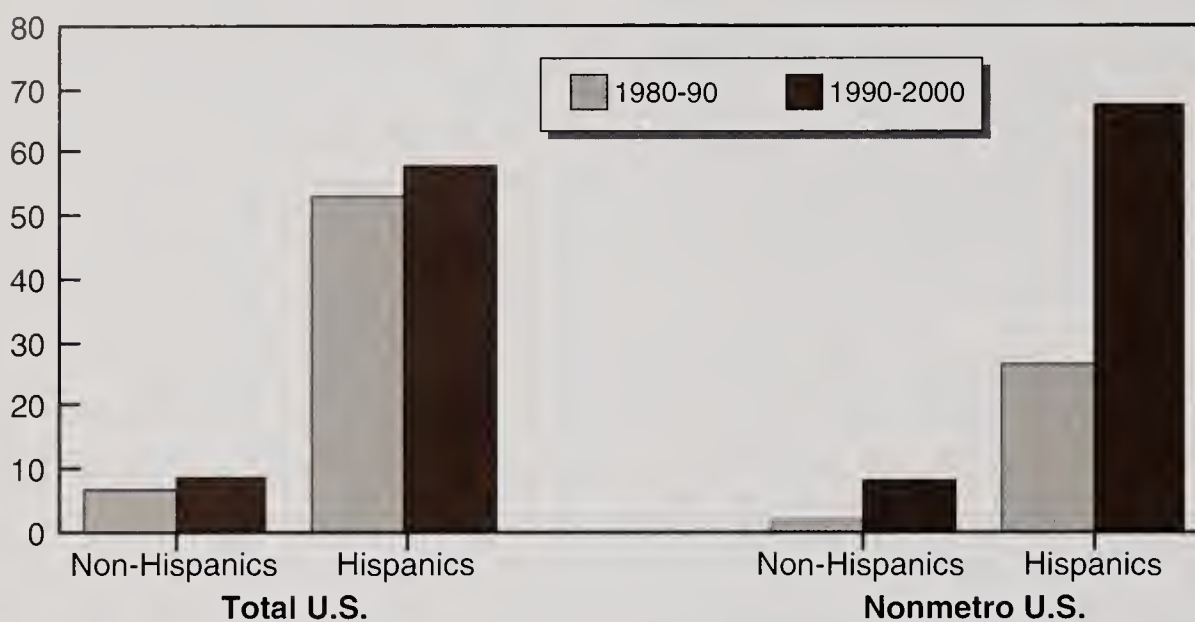
In the majority of southwestern counties, Hispanics make up over 10 percent of the total population and continue to grow through a combination of high natural increase and net immigration. Yet, by the 1980s, Hispanic populations in regions outside the Southwest were growing faster. By the end of the 1990s, the percentage of nonmetro Hispanics in the Southwest had declined from 62 to 51 percent of the U.S. total (fig. 2). In contrast, the proportion of all nonmetro Hispanics in the Midwest and South increased from 22 percent to 34 percent during the past decade.

Compared with non-Hispanics, nonmetro Hispanic population growth in the 1990s was both more widespread and more concentrated. On the one hand, 2,155 nonmetro counties (94 percent) had some Hispanic population growth in the 1990s, compared with only 1,390 counties (61 percent) in the 1980s (fig. 3). While much of this growth was moderate and sometimes consisted of relatively small numbers of Hispanics, it affected communities in every region of

Figure 1

**Rate of population change:  
Hispanics and non-Hispanics, 1980-2000**

Percent



Source: Calculated by ERS using Census 1980, 1990, and 2000 data, SF1 files.

**Table 1—Total and nonmetro Hispanic and non-Hispanic population, 1980-2000**

Ethnicity	Total	Nonmetro	Nonmetro
	---Number---		Percent of total
<b>Hispanic:</b>			
1980	14,603,683	1,492,552	10.2
1990	22,354,059	1,902,418	8.5
2000	35,305,896	3,175,953	9.0
<b>Non-Hispanic:</b>			
1980	211,942,121	48,043,231	22.7
1990	226,355,804	48,995,484	21.6
2000	246,116,081	52,983,373	21.5

Source: Calculated by ERS using 1980, 1990, and 2000 Census data, SF1 files.

the country. This dispersed Hispanic population growth contrasts sharply with the non-Hispanic population decline that occurred in over 700 nonmetro counties during the same period. Metro counties showed similar trends; only 9 lost Hispanic population in the 1990s, while 117 lost non-Hispanic population.

On the other hand, among nonmetro counties that grew during the 1990s, Hispanic population growth was more concentrated in a relatively small number of counties than non-Hispanic population growth. For example, half of all nonmetro Hispanic growth occurred in only 129, or just under 6 percent, of all nonmetro counties. In contrast, half of all non-Hispanic population growth was spread through 213 nonmetro counties.

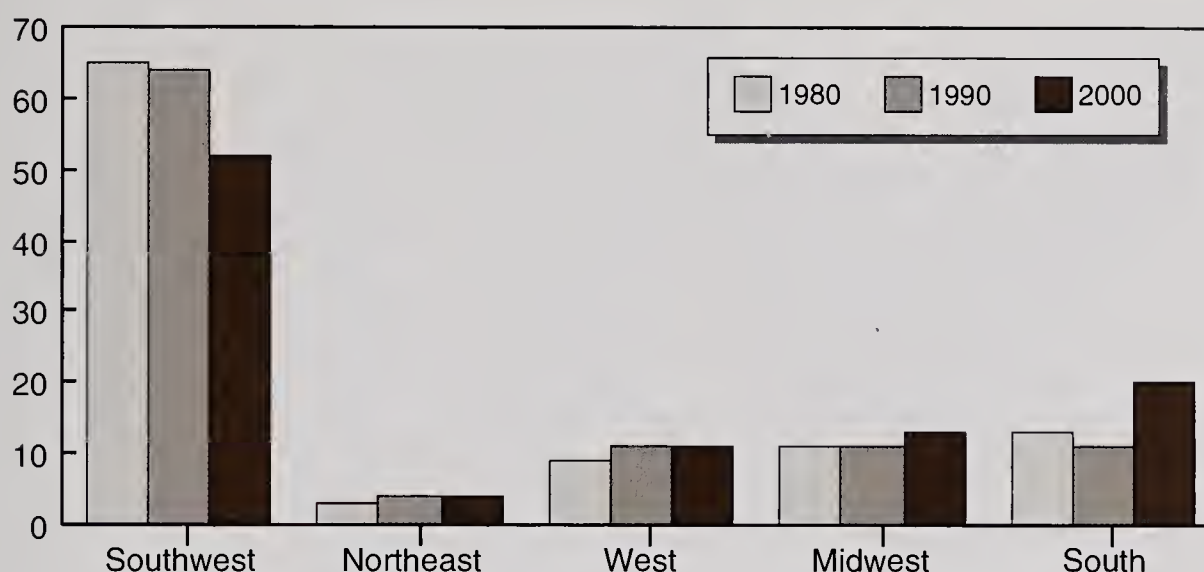
At the national level, nonmetro Hispanic dispersion over the past decade can best be illustrated with two county maps showing the Hispanic population composition in 1990 and 2000 (figs. 4a-b). The change between the two maps is dramatic; large numbers of nonmetro counties in the South and Midwest increased their Hispanic population, from “less than 1 percent” to “between 1 and 10 percent.” All States with any nonmetro counties have at



Figure 2

# **Regional distribution of nonmetro U.S. Hispanic population, 1980-2000**

Proportion of all U.S. Hispanics

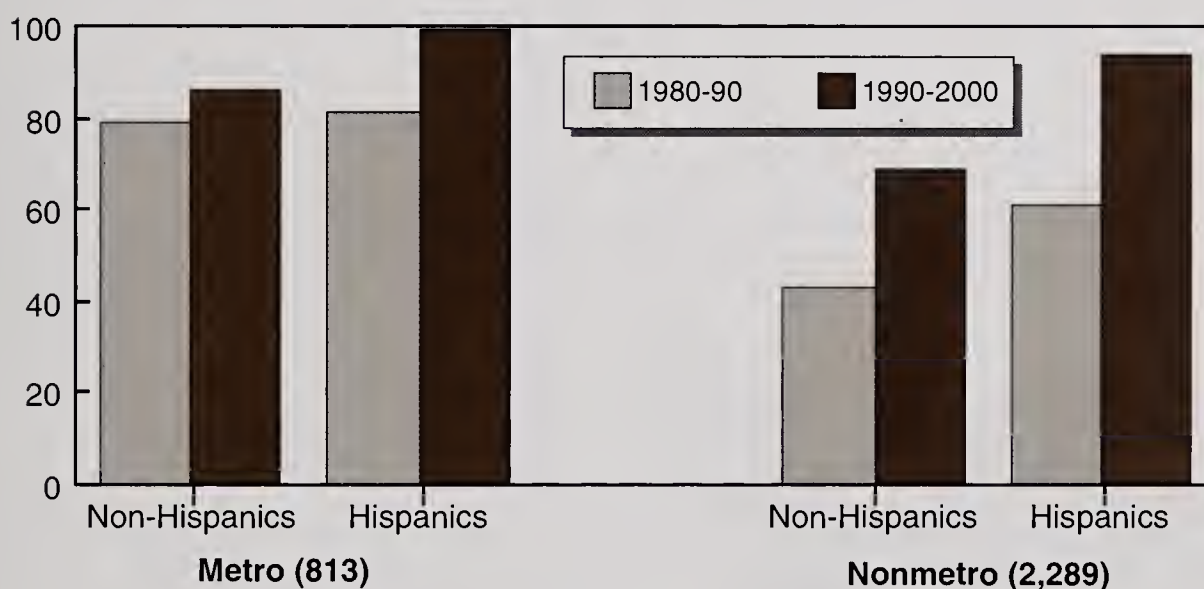


Source: Calculated by ERS using Census 1980, 1990, and 2000 data, SF1 files.

Figure 3

# **Percent of metro and nonmetro counties gaining Hispanic and non-Hispanic population, 1980-2000**

Percentage of counties

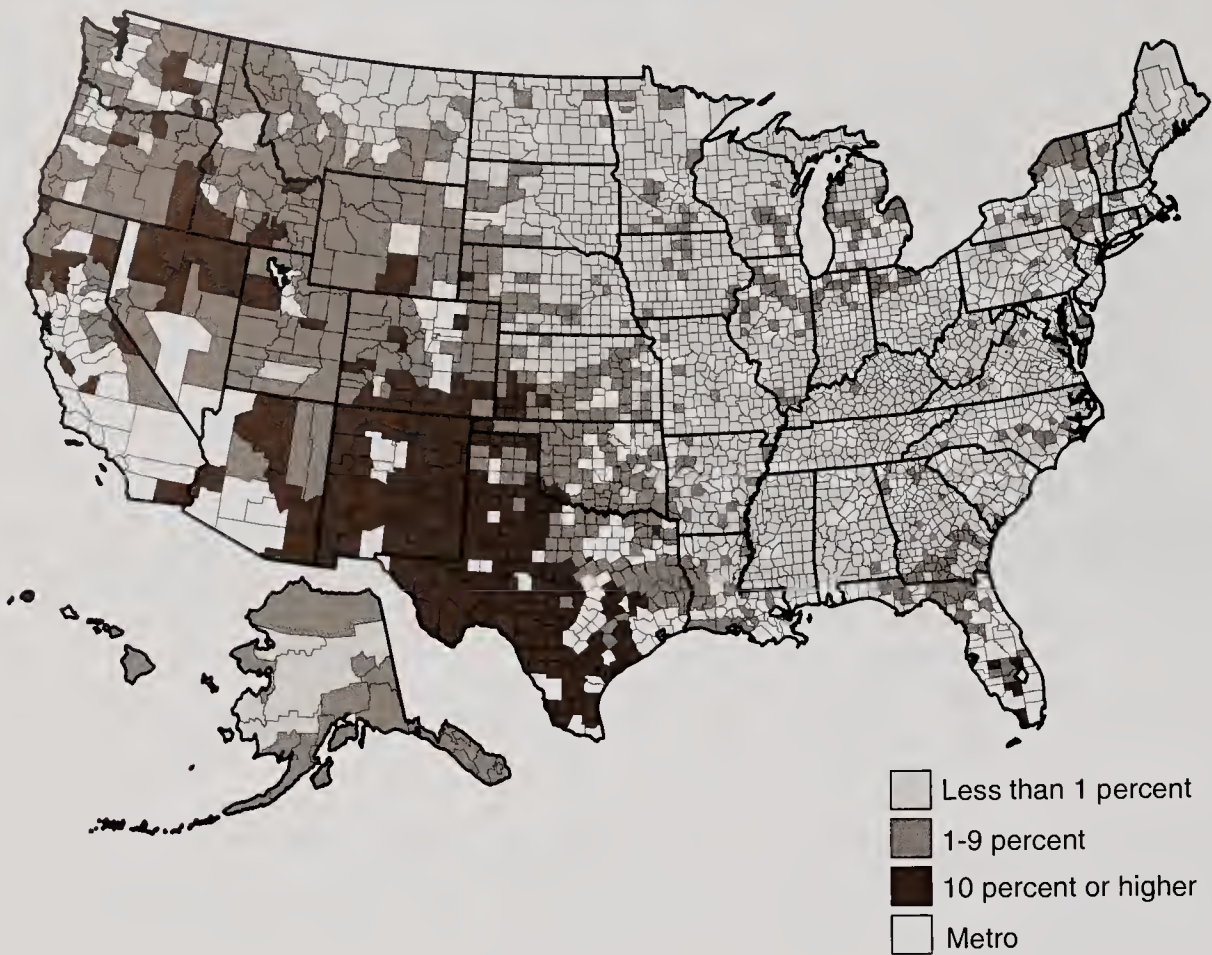


Source: Calculated by ERS using Census 1980, 1990, and 2000 data, SF1 files.

least one such county, and for most States in the South and Midwest, the majority of nonmetro counties saw the Hispanic proportion of their populations climb above 1 percent during the 1990s.

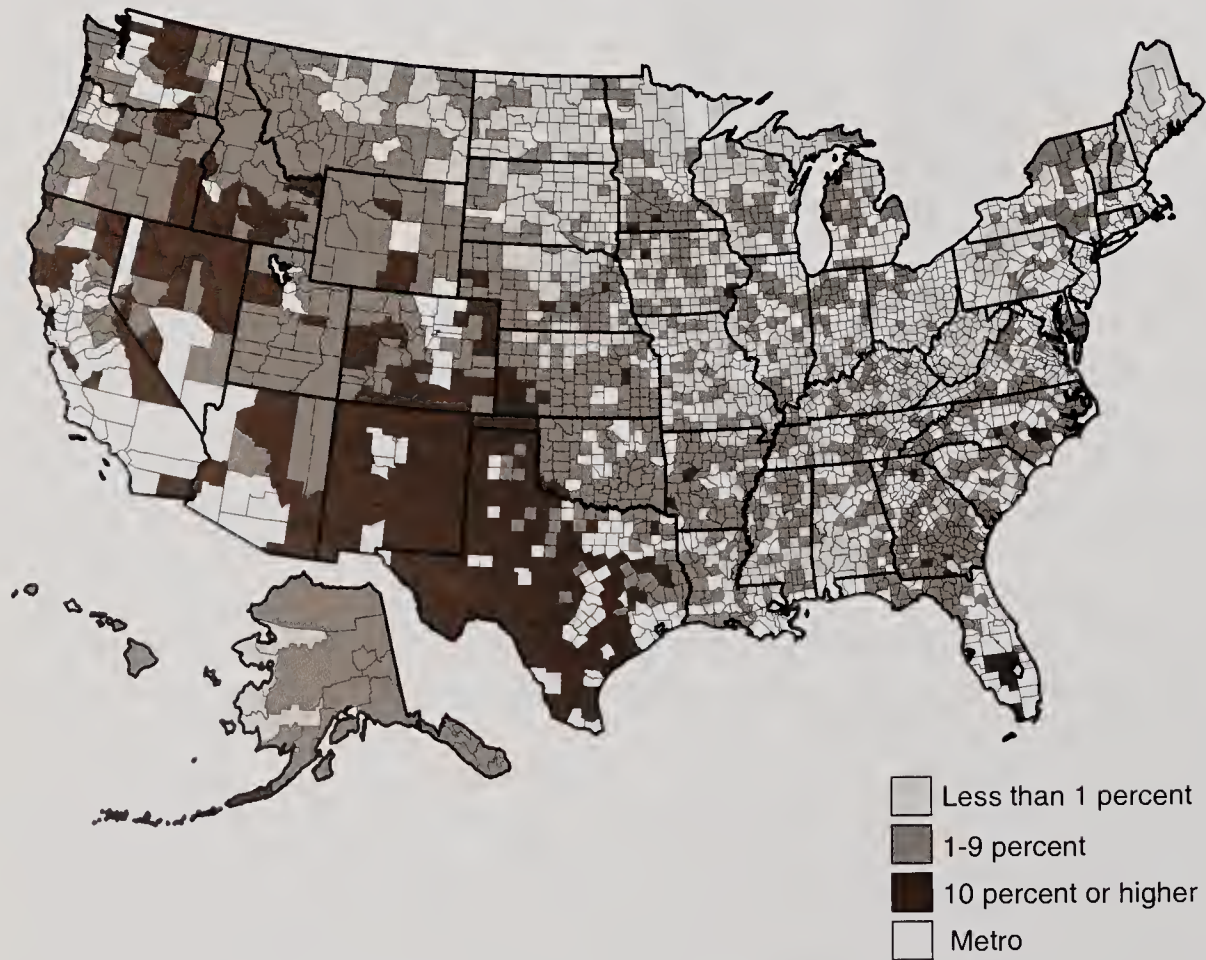
The pattern of moderate but widespread Hispanic population growth has helped stem the pattern of long-term population decline in many rural counties, especially in the Midwest and Great Plains, whose populations have been diminishing from natural decrease and economically motivated outmigration since the 1950s (Fuguitt et al., 1989; Rathge and Highman, 1998). Over 100 nonmetro counties would have lost population between 1990 and 2000 if not for Hispanic growth (fig. 5). Nearly 500 other nonmetro counties also had Hispanic population gains combined with non-Hispanic population declines, but these gains could not prevent population loss.

Figure 4a  
Hispanic share of total county population, 1990



Source: Calculated by ERS using data from the U.S. Census Bureau.

Figure 4b  
Hispanic share of total county population, 2000

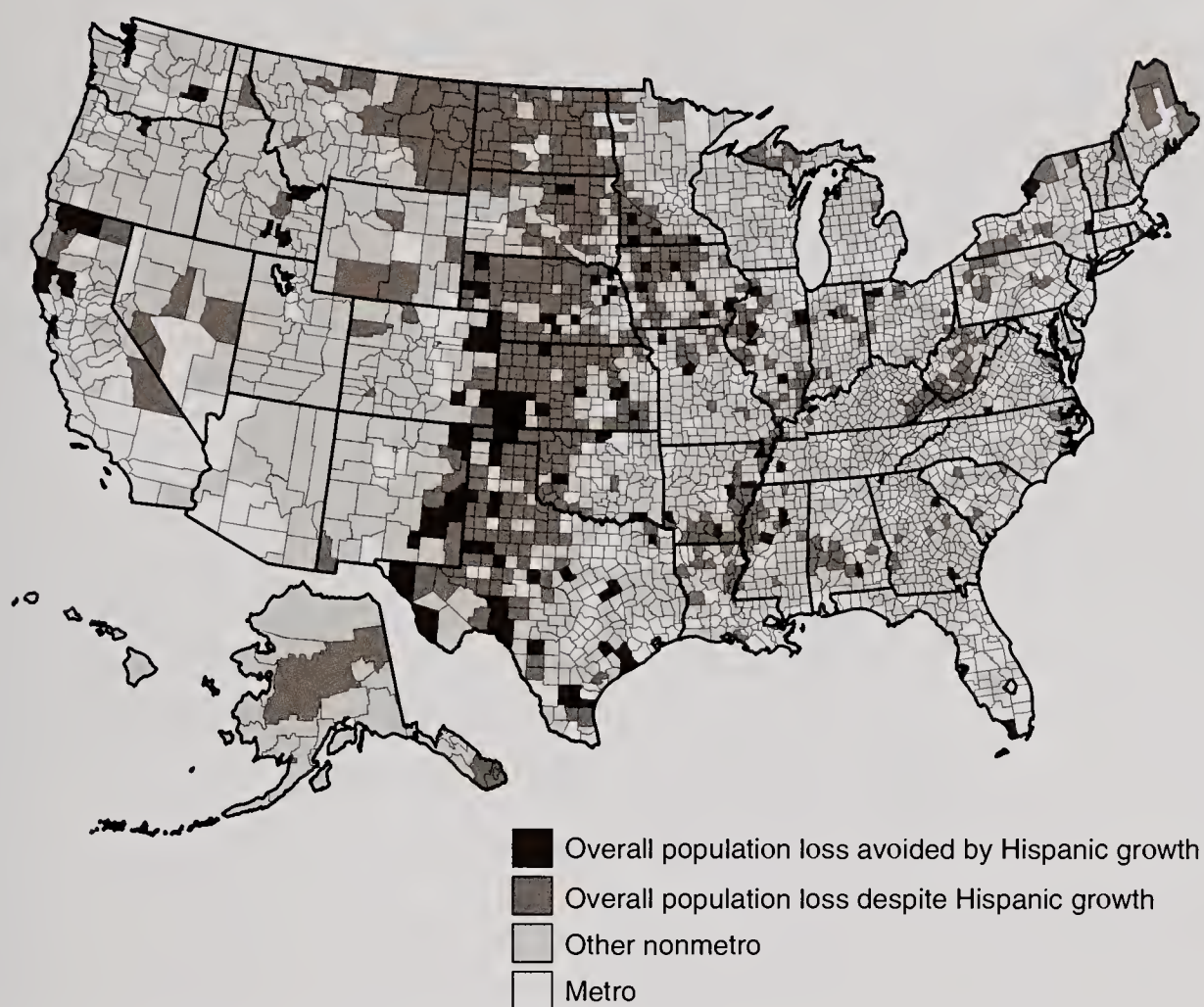


Source: Calculated by ERS using data from the U.S. Census Bureau.



Figure 5

**Nonmetro counties with Hispanic population gain and non-Hispanic population loss, 1990-2000**



Source: Calculated by ERS using data from the U.S. Census Bureau.

These patterns of Hispanic population growth—with simultaneous dispersion and concentration—lead to the identification of three types of nonmetro counties (fig. 6):

**High-growth Hispanic counties.** Between 1990 and 2000, Hispanic population growth in 149 nonmetro counties exceeded 150 percent and totaled at least 1,000 persons. These counties are in southeastern North Carolina, elsewhere in the South, the Midwest, and along the edges of traditional settlement areas, such as in Colorado, Oklahoma, and Utah, and in the Northwest.

**Established Hispanic counties.** In 230 nonmetro counties, 10 percent or more of the population was Hispanic in both 1990 and 2000.<sup>6</sup> Two-thirds of these counties are in Texas and New Mexico, near traditional settlement areas along the Rio Grande Valley and in regions of irrigated agriculture in the Texas panhandle. Traditional settlement areas extend into Colorado and spill over into southwestern Kansas counties dominated by meatpacking. Areas of fruit crops and irrigated agriculture also show up in the Northwest and southern Florida.

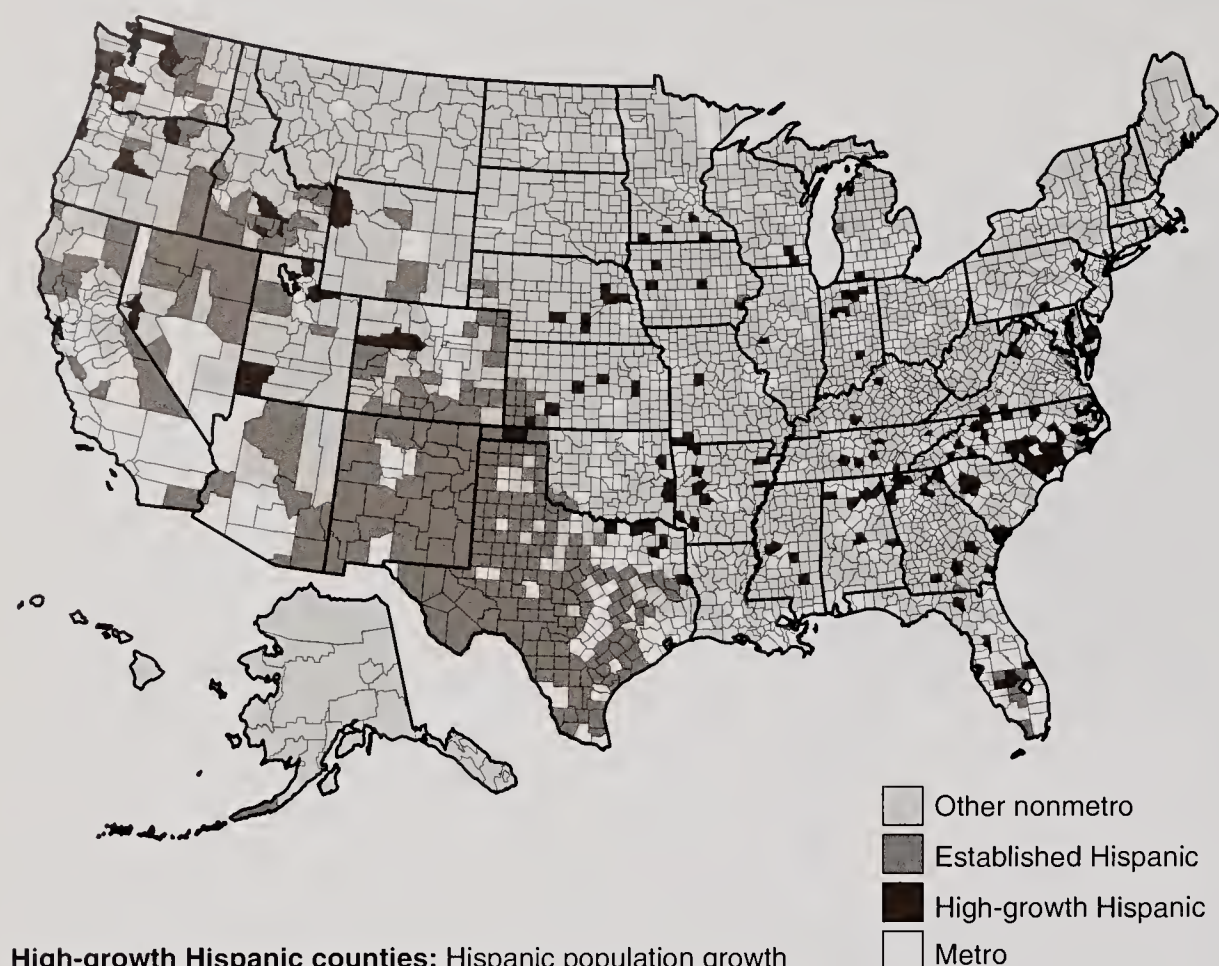
**Other nonmetro counties.** Almost all of the remaining 1,913 nonmetro counties had some Hispanic growth during 1990-2000. In many, the rates of growth matched those found in high-growth Hispanic counties, but the population base remained small, often far below 1,000.

<sup>6</sup> In 2000, all but four established Hispanic counties had Hispanic proportions of 10 percent or greater. Note also that five counties that qualified as both established and high-growth Hispanic—all outside traditional Hispanic areas—are classified as high-growth in figure 6 and in the analyses that follow in this paper.



Figure 6

# **Nonmetro Hispanic high-growth and established counties, 1990-2000**



**High-growth Hispanic counties:** Hispanic population growth exceeded 150 percent and at least 1,000 persons, 1990-2000.

**Established Hispanic counties:** Had 10 percent or higher Hispanic population in 1990

Source: Calculated by ERS using data from the U.S. Census Bureau.

These three categories registered large differences in aggregate population growth rates, population sizes, and demographic characteristics (table 2). Half of all nonmetro Hispanics live in established Hispanic counties where they make up, on average, 35 percent of the total population, a figure that far exceeds the Hispanic composition of the other nonmetro counties. Nevertheless, the Hispanic population growth rate in established Hispanic counties is also the lowest of any of the three county types. High-growth Hispanic counties, in contrast, have smaller Hispanic population sizes that grew faster than the other county types over the past decade. Hispanic populations in high-growth Hispanic counties were larger than those in the other nonmetro county category, but, on average, they still made up less than 7 percent of the total population in these counties, partly because the non-Hispanic population grew faster as well.

These classifications help identify communities in rural America where rapid growth and differing characteristics are likely to have a large impact on residential separation because the emergence of high-growth Hispanic counties typically coincides with opportunities in regional industries employing large numbers of low-skilled workers. According to employment figures and informal surveys of county economies, a significant proportion of employment in high-growth Hispanic counties stems from poultry processing (40 counties), beef and pork processing (25 counties), other manufacturing such as furniture and textiles (23 counties), and high-amenity

**Table 2—Hispanic and non-Hispanic population by Hispanic county type, 1990-2000**

County type	Number of counties	Hispanic			Non-Hispanic		
		Total population, 2000	Average county population, 2000	Percent change, 1990-2000	Total population, 2000	Average county population, 2000	Percent change, 1990-2000
<b>Nonmetro</b>	<b>2,289</b>	3,175,953	1,387	<b>67.9</b>	52,983,373	23,147	<b>8.2</b>
High-growth Hispanic	149	526,942	3,537	<b>344.9</b>	7,254,164	48,686	<b>15.1</b>
Established Hispanic	230	1,602,630	6,968	<b>31.8</b>	2,931,071	12,744	<b>8.8</b>
Other nonmetro	1,913	1,046,381	547	<b>84.0</b>	42,798,138	22,372	<b>7.0</b>
<b>Metro</b>	<b>813</b>	32,129,864	39,520	<b>57.1</b>	193,132,712	237,556	<b>8.9</b>

Source: Calculated by ERS using 1990, and 2000 Census data, SF1 files.

resort areas that attract low-wage service workers (10 counties) (U.S. Census Bureau, 2000). These industries play a far smaller economic role in established Hispanic and other nonmetro counties, and they also foreshadow significant differences in demographic and earnings-related characteristics that influence socioeconomic integration.



## The New Rural Hispanic Population

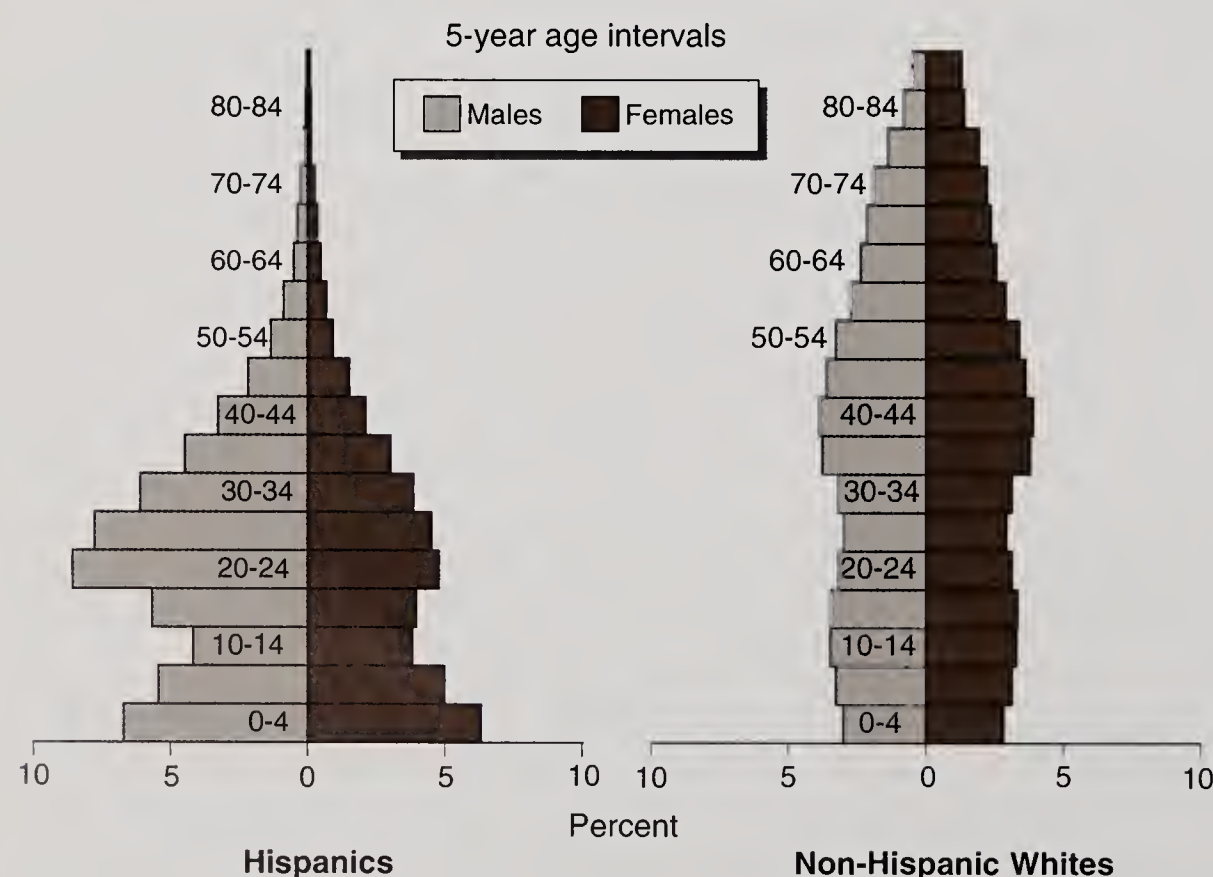
The most prominent demographic differences between Hispanics and non-Hispanic Whites occur in age and sex distributions, particularly in high-growth Hispanic counties. Population pyramids display these differences most effectively (fig. 7). Hispanics in high-growth counties possess a much younger age distribution that is disproportionately male, particularly for ages 15-39, a prime age range for international labor migration (Massey et al., 1987a, p. 124). Higher percentages in the two youngest age categories of the population pyramid reflect both younger, family-forming ages of Hispanic parents and higher Hispanic fertility rates in the United States (Downs, 2003).

These differences become dramatic if percentages for selected age groups are summed. In high-growth counties, for example, males aged 15-35 constitute 18.5 percent of the total non-Hispanic White population; for Hispanics, the figure is almost double, 35.7 percent. Similarly, children under age 10 make up 12.2 percent of the non-Hispanic White population but 23.5 percent of the Hispanic population in these counties. Age and sex data for other county types show patterns comparable to those of high-growth Hispanic counties, although differences between Hispanics and non-Hispanic Whites are less extreme.

Age and sex composition have important economic and public policy ramifications. Younger populations attend schools, enter the labor force in relatively greater numbers, vote relatively infrequently, and require sharply

Figure 7

**Population pyramids for Hispanics and non-Hispanic Whites, high-growth Hispanic counties, 2000**



Source: Calculated by ERS using Census 2000 data, SF1 files.



different social services than older populations who, in contrast, require more health care, leave the labor force in relatively greater numbers, and vote more reliably (Jamieson, Shin, and Day, 2002). Populations with high proportions of young males are more likely to have higher rates of high-risk behaviors (Hernandez and Charney, 1998). These differences can create tensions among residents over local budgetary choices and may consequently alter residential settlement patterns over time.

Hispanic households (see box, “Household vs. Family”) reflect a younger age structure and a greater tendency to live in more crowded housing (table 3). For example, despite the gender imbalance, Hispanics in high-growth counties are significantly more likely to live in nuclear families with children than Hispanics in other nonmetro county types and twice as likely as non-Hispanic Whites in all county types. Most Hispanic married couples have children living at home, while most non-Hispanic White married couples do not. This difference reflects both the younger age structure of Hispanic couples who are more likely to have young children living with them, as well as higher average birthrates of Hispanics compared with non-Hispanic Whites. Higher percentages of single-parent and unrelated group households among Hispanics reflect a greater preponderance of labor migration; older children often accompany their parents on U.S. trips, and group housing is an effective household budget strategy. In contrast, higher percentages of single-person households among non-Hispanic Whites for elderly as well as young adults reflect several characteristics, including the economic means and personal preferences for living alone, and a greater proportion of elderly persons.

Two characteristics of Hispanic household structure are worth highlighting. First, despite the fact that most working-age Hispanic migrants are male, data from Census 2000 indicate a greater proportion of married couples with children among Hispanic households in high-growth Hispanic counties than among Hispanic households in all other county types as well as all non-Hispanic White households. Second, the household structure of Hispanics

**Table 3—Household structure for Hispanic and non-Hispanic Whites, by county type**

County type	Married with children	Married without children	Single parent w/ children	Unrelated group	Single person under age 65	Single person over age 65	Total
<i>Percent</i>							
<b>Hispanics:</b>							
High-growth Hispanic	47	13	15	17	7	1	100
Established Hispanic	37	22	15	11	9	6	100
Other nonmetro	36	19	15	14	12	4	100
Metro	37	18	16	16	10	3	100
<b>Non-Hispanic Whites:</b>							
High-growth Hispanic	24	35	7	10	14	11	100
Established Hispanic	23	35	7	9	14	12	100
Other nonmetro	24	34	7	9	14	12	100
Metro	23	31	7	12	17	10	100

Source: Calculated by ERS using 2000 Census data, SF3 files.

## Household vs. Family

Family and household refer to different entities. The Census

defines a family to include “a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family.” Families are classified by type as either a married-couple family or an other family according to the presence of a spouse. The other family category is further broken out according to the sex of the householder.

A household, on the other hand, is defined as “all the people who occupy a housing unit. A household can contain only one family for purposes of Census tabulations. Not all households contain families since a household may be a group of unrelated people or one person living alone” (U.S. Census Bureau, 2001).

living in established Hispanic counties exhibits a slight resemblance to that of non-Hispanic Whites rather than that of other Hispanics.

Length of U.S. residence influences many socioeconomic outcomes, and Hispanic groups vary noticeably in this regard. For example, Census 2000 data indicate that just over 30 percent of nonmetro Hispanics were born in a foreign country compared with 45 percent in metro counties. On the other hand, significant numbers of Hispanics have parents who were born in the United States and whose more mainstream socioeconomic profiles bear little resemblance to those of recent Hispanic arrivals (Suárez-Orozco and Suárez-Orozco, 1995). Five centuries of Hispanic settlement in the United States have established a distinction between recent Hispanic arrivals and those living in the United States for generations.

Where people lived at a previous point in time reflects the amount of their time spent in the United States, and the 2000 Census long form asks where respondents lived in 1995 (table 4). Hispanics in general were more likely to report living in a different country in 1995 than non-Hispanic Whites, reflecting decades of immigration from Latin America. However, Hispanics residing in high-growth Hispanic counties were more likely than Hispanics elsewhere to have migrated internally or internationally. For every 10 Hispanics in a high-growth Hispanic county in 2000, 2 lived in a different country and 2 more lived in a different State just 5 years earlier. Although data are not available, it is likely that the number of Hispanics reporting a different place of residence in 1990 would have been even higher.

Data on year of arrival to the United States also reflect the relatively limited U.S. experience of Hispanics in high-growth Hispanic counties (fig. 8). Differences among county types are striking. Over 60 percent of all foreign-born residents of high-growth Hispanic counties arrived in the United States between 1990 and 2000, compared with about 40 percent for all other county types. In general, immigration has increased in recent decades, and Latin Americans, who make up the majority of nonmetro foreign-born residents, have dominated this population since the 1960s.



**Table 4—Residence in 1995 of Census 2000 respondents, by race and ethnicity**

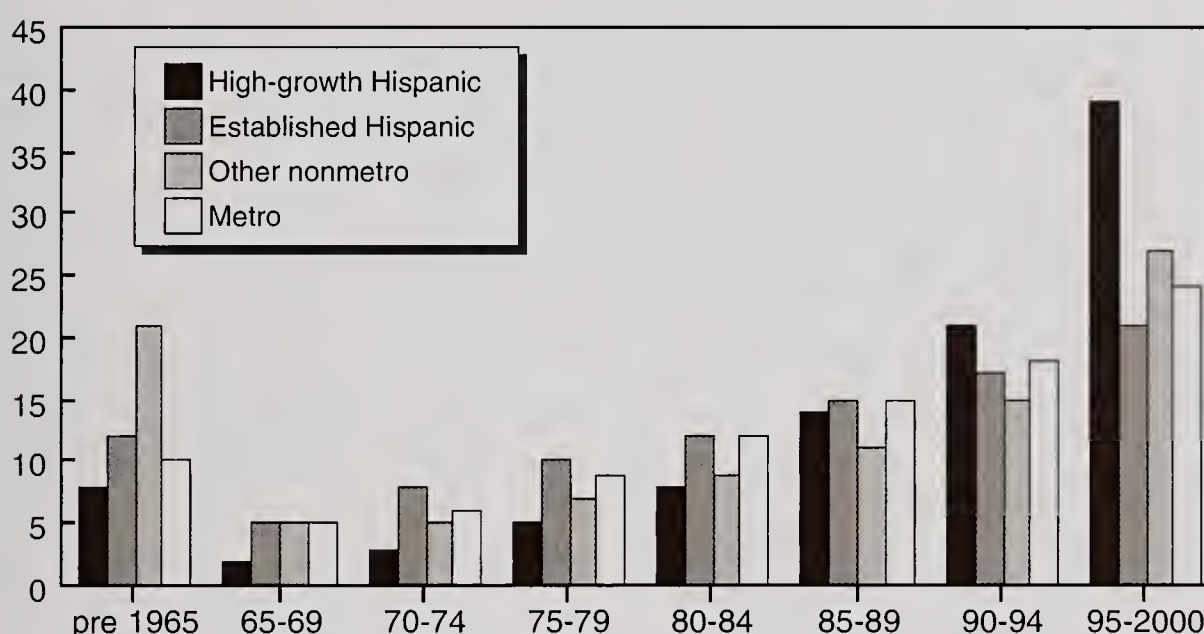
		Residence in 1995				
Race/ethnicity	County type	Same county	Same State	Different State	Different country	Total
Percent						
Hispanic	High-growth Hispanic	49	10	19	22	100
	Established Hispanic	80	11	5	4	100
	Other nonmetro	59	16	15	10	100
	Metro	77	7	6	10	100
Non-Hispanic White	High-growth Hispanic	78	11	10	1	100
	Established Hispanic	74	14	10	1	100
	Other nonmetro	81	11	7	0	100
	Metro	80	10	9	1	100

Source: Calculated by ERS using 2000 Census data, SF3 files.

Figure 8

### Year of U.S. arrival for all foreign-born Hispanics

Percent



Source: Calculated by ERS using data from Census 2000, SF3 files.

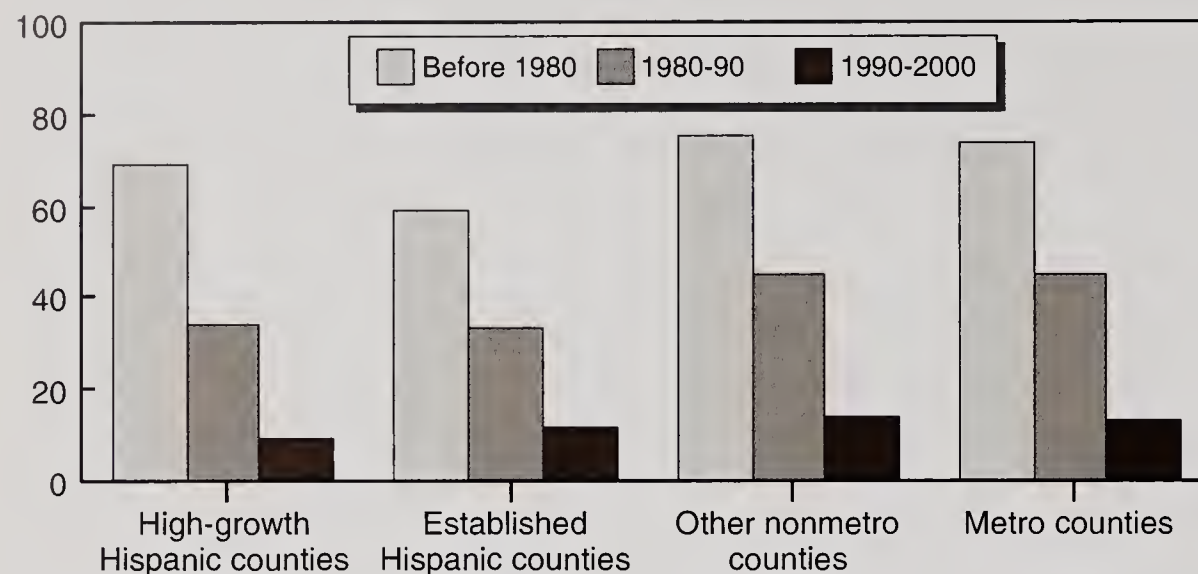
Legal status also heavily influences economic and social well-being through its impact on everything from social service eligibility to employment and residential mobility, and even working conditions and wages (Lieberson, 1961; Ise and Perloff, 1993; Kossoudji and Cobb-Clark, 2002) (fig. 9). Accordingly, Census data on naturalization rates of all foreign-born persons provide some measure of the degree to which foreign-born persons integrate into U.S. society. The Census data are somewhat limited because they are summarized for all foreign born persons regardless of ethnicity, and include only three general legal status categories: undocumented individuals who comprise a substantial portion of the foreign-born, low-skill labor force; documented individuals who possess legal status to work and live in the United States; and naturalized individuals who possess all rights conferred by citizenship. Nevertheless, data exist at the county level and are more precise than most estimates of documented or undocumented legal status.



Figure 9

### Percent foreign-born who are naturalized citizens, by decade of arrival in the United States

Percent



Source: Calculated by ERS using data from Census 2000, SF3 files.

Naturalization rates for foreign-born persons do not differ significantly across county types. Yet, because time spent in the United States is strongly correlated with naturalization, foreign-born persons who work and live in the United States longer are more likely to regularize their legal status through sponsorship, work visas, marriage, and other means (Johnson et al., 1999). Foreign-born persons entering the United States between 1980 and 1990, for example, were more than three times as likely to be naturalized as those entering the following decade, although some or most of this difference may be explained by the 5-year residence requirement for naturalization.

Apart from legal status regularization, time spent in the United States provides foreign-born persons with greater opportunity to acquire English language skills, a critical factor for earnings and employment mobility. In high-growth Hispanic counties, roughly half of all working-age Spanish speakers claimed English language proficiency, as measured by whether they indicated on the Census long form they spoke it “well” or “very well.” In established Hispanic and other nonmetro counties, the proportion, at close to three-quarters, is significantly higher. Low English language proficiency in high-growth Hispanic counties is particularly pronounced among working-age residents (fig. 10).

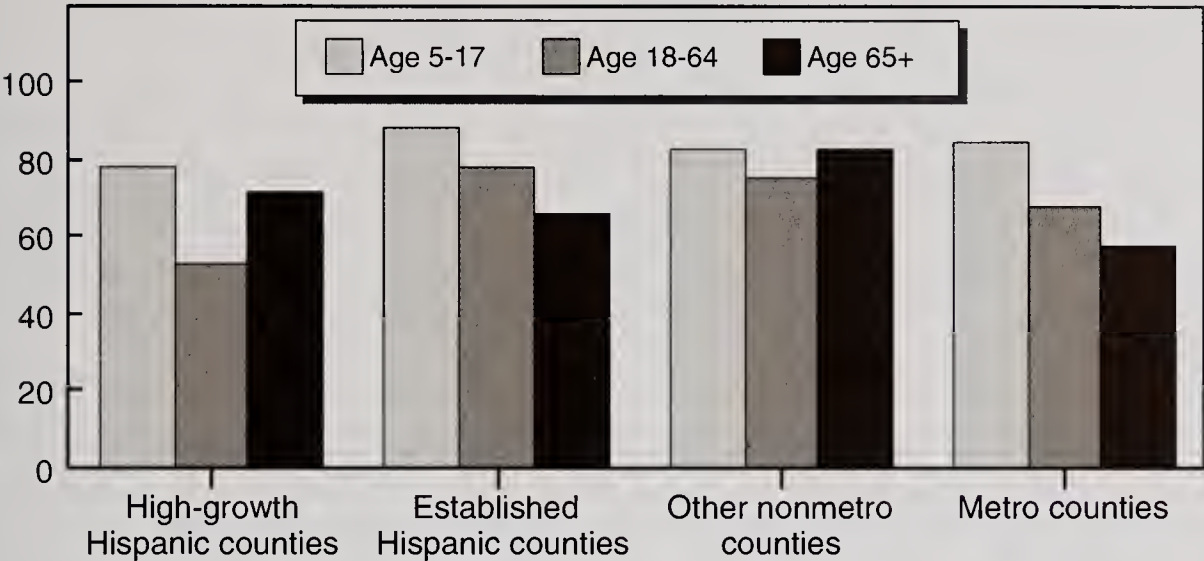
Formal education also heavily influences economic outcomes but is harder to attain for most people than English language skills. On average, educational attainment of Hispanics trails that of non-Hispanic Whites, and among Hispanics, those living in high-growth Hispanic counties have lower educational levels than Hispanics in other county types due to higher proportions of recent U.S. migrants (table 5). Regardless of whether such migrants have more or fewer years of schooling than persons in their countries of origin, they often originate from relatively poor and rural communities with fewer opportunities to acquire and apply schooling (Kandel, 2003b).

In general, more education increases the chances of being employed. However, this fundamental relationship appears to be more flexible for

Figure 10

**Percent of Spanish-speaking people (at home) who speak English "very well" or "well," by age group and county type**

Percent



Source: Calculated by ERS using data from Census 2000, SF3 files.

**Table 5—Educational attainment by race and ethnicity for persons 25 years and older<sup>1</sup>**

Race/ethnicity and county type	0-8 years of schooling	9-11 years of schooling	High school graduate	College graduate	Total
Percent					
<b>Hispanic:</b>					
High-growth Hispanic	41	22	31	6	100
Established Hispanic	32	19	42	6	100
Other nonmetro	25	20	45	9	100
Metro	27	20	42	11	100
<b>Non-Hispanic White:</b>					
High-growth Hispanic	7	13	61	18	100
Established Hispanic	5	12	63	21	100
Other nonmetro	8	13	63	16	100
Metro	4	9	57	30	100

<sup>1</sup> High school graduation rates are relatively low because the sample of persons examined includes older generations of persons who have less schooling than younger generations. Currently, the high school graduation rate for Hispanic adults age 25-29 is 63 percent; for both non-Hispanic Whites and African Americans, the rate is 88 percent. For persons born in the United States, high school graduation rates are higher: 80 percent for Hispanics and 93 percent for non-Hispanic Whites and African Americans (Council of Economic Advisors, 2000).

Source: Calculated by ERS using 2000 Census data, SF3 files.

Hispanics in high-growth counties, who, despite their lower educational attainment, have employment levels that exceed not only those of non-Hispanic Whites but also those of Hispanics in all other county types (table 6). This unusual pattern is consistent with evidence showing that Hispanics move to these counties to follow employment opportunities through social networks or recruitment efforts (Hernández-León and Zúñiga, 2000; Johnson-Webb, 2002). Migration to other counties may also be employment-based and tied to social networks but more random for specific jobs. Greater employment opportunity in high-growth counties also accounts



**Table 6—Employment status for persons 16 and older, by sex, race, ethnicity, and county type, 2000**

Race/ethnicity and county type	Males			Females		
	Employed	Inemployed	Out of labor force	Employed	Unemployed	Out of labor force
	Percent					
Hispanics:						
High-growth Hispanic	70	6	24	48	6	46
Established Hispanic	55	7	38	43	6	51
Other nonmetro	60	5	34	50	6	44
Metro	64	6	30	47	6	47
Non-Hispanic Whites:						
High-growth Hispanic	67	3	30	53	3	44
Established Hispanic	62	3	35	50	3	47
Other nonmetro	64	4	32	52	3	45
Metro	71	3	26	56	2	41

Note: Data on employment status from Census 2000 are not restricted by an upper age limit. Consequently, the percentage of each group out of the labor force also includes retirees.

Source: Calculated by ERS using 2000 Census data, SF3 files

for slightly higher employment rates of non-Hispanic Whites compared with those in established Hispanic and other nonmetro counties.

Despite relatively high employment rates, Hispanics’ median individual, family, and household incomes trail those of non-Hispanic Whites (table 7). Ratios between the two groups’ incomes narrow as the unit of analysis increases from individual to family to household, highlighting the importance of household structure for economic well-being, particularly among recently arrived Hispanics. For example, among non-Hispanic Whites in high-growth Hispanic counties, family income is higher than household income. The opposite is true for Hispanics, reflecting larger average Hispanic household sizes with more income earners among householders. Numerous studies attribute income gaps to differences in education, English language skills, legal status, and U.S. work experience. Despite progress in the acquisition of characteristics that improve income, such as legal status and English skills, it remains unclear if the persistent earnings gap between Hispanics and non-Hispanic Whites diminishes after controlling for these factors (Borjas, 1999; Chiswick, 1978; Carliner, 1980; Schoeni et al., 1996).

These income differences are mirrored by poverty rates for Hispanics, which substantially exceed those of non-Hispanic Whites across all county types (fig. 11). To define poverty, the Census Bureau compares income with a threshold that varies by family size and composition; in 2000, that threshold was \$17,463 for a family of two adults and two children. Like income, the gap in poverty rates between Hispanics and non-Hispanic Whites is lowest in other nonmetro counties, where the Hispanic presence is smallest. Relatively high employment rates of Hispanics in high-growth counties imply other causes for higher poverty rates, such as low education attainment and other individual factors such as English language ability and legal status.

Our county typology highlights new Hispanic population destinations where the average profile of rural Hispanics contrasts sharply with that of non-



Table 7—Median individual, family, and household income in 1999 dollars

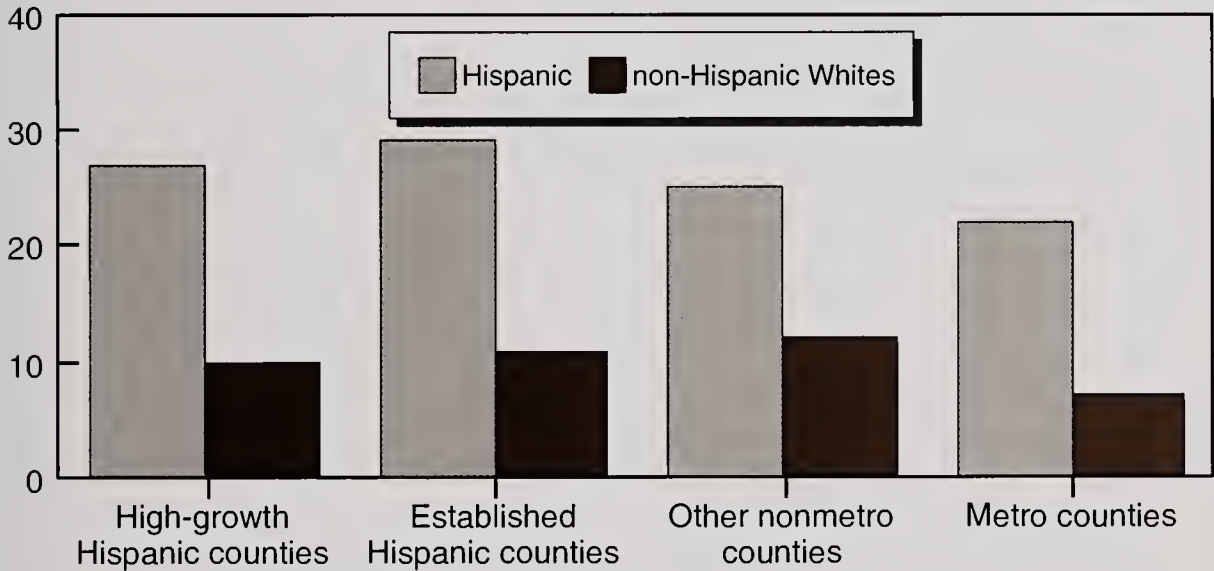
	Individuals			Families			Households		
	Hispanic (a)	Non-Hispanic White (b)	Ratio (a)/(b)	Hispanic (a)	Non-Hispanic White (b)	Ratio (a)/(b)	Hispanic (a)	Non-Hispanic White (b)	Ratio (a)/(b)
	---- Dollars ----		Percent	---- Dollars ----		Percent	---- Dollars ----		Percent
High-growth Hispanic	8,989	18,819	48	28,875	44,945	64	29,398	37,199	79
Established Hispanic	9,193	18,859	49	26,559	42,865	62	24,621	34,653	71
Other nonmetro	9,578	17,208	56	29,807	40,663	73	28,594	33,360	86
Metro	12,523	21,896	57	36,596	53,383	69	34,750	44,690	78

Source: Calculated by ERS using Census 2000 data, SF3 files.

Figure 11

Poverty rates for Hispanics and non-Hispanic Whites, by county type

Percent



Source: Calculated by ERS using data from Census 2000, SF3 files.

Hispanic Whites. A significant proportion of Hispanic newcomers to nonmetro U.S. counties lacks a high school degree, proficient English language skills, and naturalized immigration status. In counties with rapidly growing Hispanic populations, these differences help explain the stark income and poverty gaps between Hispanics and non-Hispanic Whites. Nevertheless, Hispanics are likely to continue to arrive in these areas at high rates, attracted by the opportunity to earn enough money to support their families back home and/or in the United States. Areas with rural industries employing significant numbers of Hispanics will invariably confront the policy implications presented by this growing population group.

## Residential Settlement Patterns of Hispanics and Non-Hispanic Whites

Research demonstrates the importance of residential location for social and cultural incorporation as well as resource allocation through a host of public services. We now turn to the issue of Hispanic residential settlement patterns by addressing the following question: *How did residential separation between Hispanics and non-Hispanic Whites change in the past decade, during a period of unprecedented growth in the rural Hispanic population?* By measuring changes in residential distance between non-Hispanic Whites and Hispanics in different types of nonmetro counties and comparing these changes to residential patterns in metro counties, we find a progression of residential integration for Hispanics, based upon their location and length of time in the United States.

### Measuring Residential Separation

Residential separation is a multi-dimensional characteristic comprised of *evenness* of population patterns, exposure to majority members, *concentration* within certain areas, *centralization* around core areas, and clustering toward enclaves (Massey, 1985; Massey and Denton, 1988). This analysis uses the Dissimilarity Index (D) to compute relative evenness of the distribution of two population groups within a given *area* by comparing their distributions across *subareas*, as shown in the following formula:

$$D = 0.5 * \sum_i \left| \frac{h_i}{H} - \frac{w_i}{W} \right|$$

where  $h_i$  and  $w_i$  are the Hispanic and non-Hispanic White population of subarea  $i$  and  $H$  and  $W$  are the total Hispanic and non-Hispanic White populations of the area (see fig. 12 for a hypothetical example). Values of  $D$  range from a minimum of 0 to a maximum of 1. Each value represents the proportion of either population that would have to change subareas to achieve evenness with the other group. For instance, a given county subdivided into Census tracts and with a  $D$  value of 0.5 indicates that half the Hispanic population would have to change Census tracts for the county's Hispanic population to have the same relative distribution as that of non-Hispanic Whites. Higher  $D$  values indicate greater spatial distance—meaning greater residential separation and a less even distribution—between the two groups.

We employ the Dissimilarity Index to analyze residential separation of Hispanics, by county category, of counties within the Nation, places (towns, villages, cities, etc.) within counties, and neighborhoods (Census tracts) within places (see box, “Analysis of Places”).

### Residential Separation among Counties Within the Nation

The first of the three geographic scales we consider relevant for understanding changing settlement patterns of nonmetro Hispanics—the county—captures Hispanic population dispersion nationally, including among metro and nonmetro areas. In this case, the Nation functions as the “area” and counties as “subareas” across which we measure residential



Figure 12

Distribution of households within one hypothetical county with high residential separation and one with low residential separation

High-separation county							Low-separation county						
O	O	O		Y	Y	Y	Y	Y	O		Y	O	Y
O	O	O		Y	Y	Y	Y	O	Y		Y	Y	O
O	O	O		Y	Y	Y	O	Y	Y		Y	O	Y
Y	Y	Y		Y	Y	Y	O	Y	Y		Y	O	Y
Y	Y	Y		Y	Y	O	Y	O	Y		Y	Y	O
Y	Y	Y		Y	O	O	Y	O	Y		O	Y	Y

O Minority household

Y Majority household

Note: Cells represent subareas within areas (e.g., places within counties, Census tracts within places). Adapted from Iceland et al., 2002

separation. Earlier, we noted a clear and growing geographic diffusion of Hispanics into new regions of rural America. The declines in the Dissimilarity Index (D)—from 0.59 to 0.55 for the Nation as a whole, and from 0.65 to 0.57 for all nonmetro counties—indicate less spatial distance between Hispanics and non-Hispanic Whites, nationally.

Throughout the Nation and within all county types, Hispanics became more geographically integrated among non-Hispanic Whites over the course of the past decade (fig. 13). Hispanics were least dispersed among the 1,913 other nonmetro counties, but this county type also experienced the greatest decline in separation between Hispanics and non-Hispanic Whites. If this trend continues, it could portend significant ethnic and social change. With the exception of nonmetropolitan counties in the Southwest, rural America has long been populated overwhelmingly by non-Hispanic Whites who have had little consistent contact with foreign-born persons from non-European countries. If such interaction between nonmetro non-Hispanic Whites and Hispanics increases, it could mirror similar processes of, and struggles for, incorporation and acceptance occurring in metropolitan areas.

Increasing values of D at the national level would support the “demographic balkanization” thesis, which holds that America is dividing into broad ethnically and racially lopsided regional enclaves. However, since dispersion dominated Hispanic population patterns throughout the 1990s, particularly into nonmetro areas, declining dissimilarity indices across all county types are neither surprising nor consistent with the demographic balkanization thesis, at least for Hispanics.



## Analysis of Places

For the analysis of places, we use incorporated and unincor-

porated places that were recognized in both the 1990 and 2000 Censuses. For the analysis of neighborhoods, we use 1990 Census tracts, with matched 1990 and 2000 population figures to maintain identical spatial units between Censuses. Where tracts were split to account for growing populations, we re-aggregated 2000 tracts to match 1990 configurations. For the small number of Census tracts that were re-configured, we used a computer-based overlay analysis to allocate 2000 populations to 1990 geography. For the analysis of counties, *D* values represent single values for each of the four county types. For the analyses of places within counties, and neighborhoods within places, we computed *D* values for each county and then averaged them across counties for each of the four county types.

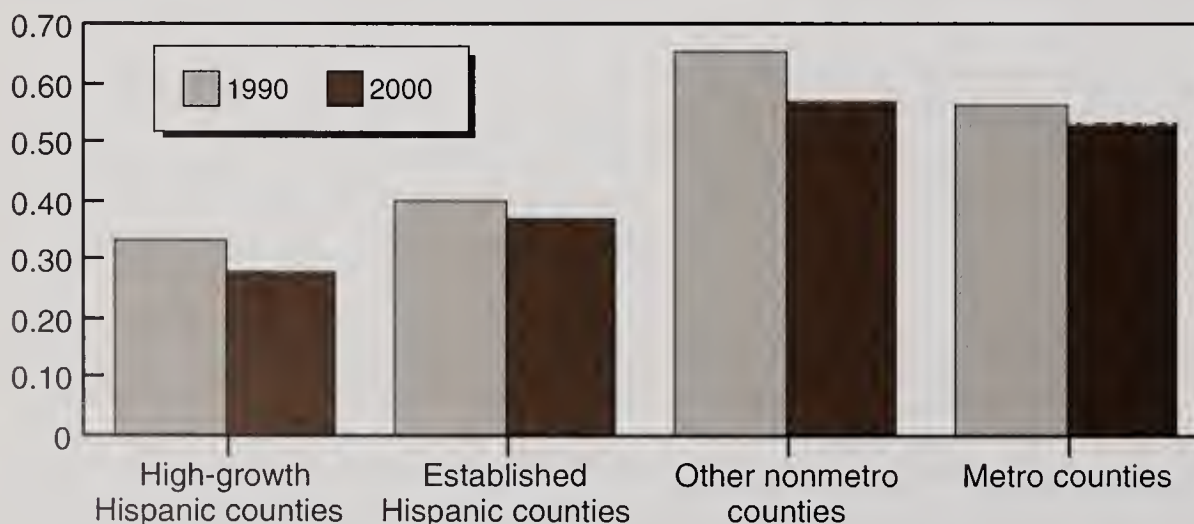
The Dissimilarity Index was chosen over other measures of segregation because of its relatively straightforward interpretation and comparability. Unlike measures of *exposure* used in some studies, *D* is not sensitive to relative numbers of minority members. In high-growth Hispanic counties, where both the absolute number and proportion of Hispanics increase rapidly, most *exposure* measures would increase in situations where relative population evenness (as measured by *D*) remained the same.

Some criticize the dissimilarity indicator for lower sensitivity to separation among larger geographic units, thus yielding higher values for residential separation in neighborhoods of a metropolitan area than in larger counties of a State. Similarly, residential separation, as measured by Census blocks, will be higher than for the same populations divided into larger units such as Census tracts or places. Our interest, however, is not to compare dissimilarity at different geographic scales—for example, between neighborhoods and places. Rather, within the *same geographic scale*, we wish to compare changes over time and changes across different county types.

Figure 13

### Residential separation in counties within the United States, Hispanics and non-Hispanic Whites, by county type, 1990-2000

Dissimilarity Index (*D*)



Note: *D* measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of *D*, the less evenly distributed the two groups are.

Source: Economic Research Service/USDA.

## Residential Separation in Places Within Counties

Within counties, however, the national trend of Hispanic population dispersion does not hold. At this level of analysis, for purposes of measuring dissimilarity, the county functions as the “area” and places (e.g., towns, villages, cities, etc.) function as “subareas.” Results measure the degree to which Hispanics and non-Hispanic Whites live together within or outside of town and city boundaries for the different county types (fig. 14).

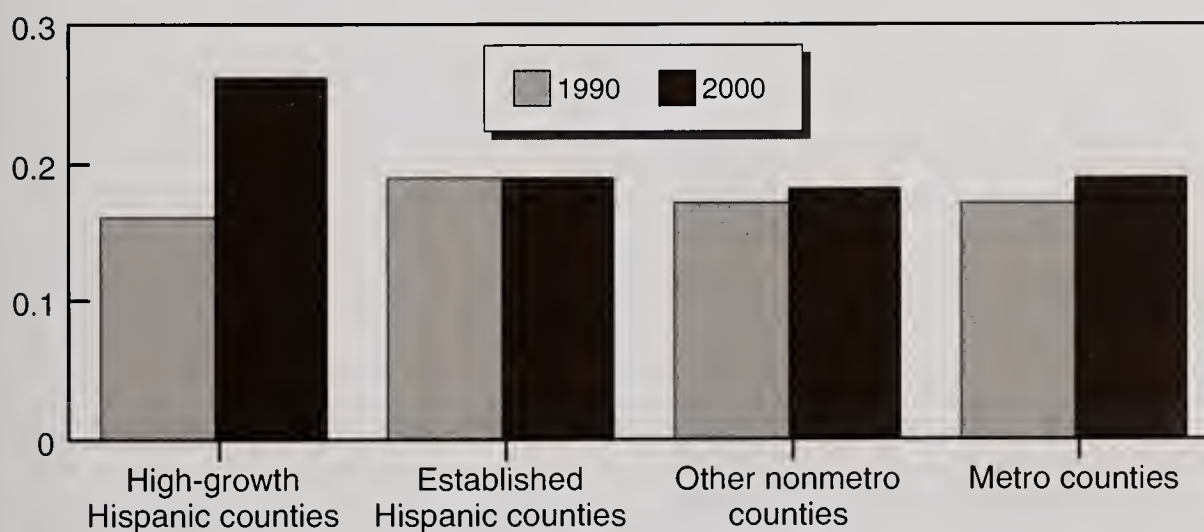
Between 1990 and 2000, residential separation increased slightly within metro and other nonmetro counties, but significantly (63 percent) in high-growth Hispanic counties, which exhibited the lowest average dissimilarity among all county types at this level of analysis in 1990. This increase in *D* means that, on average, Hispanics living in these 149 counties were about two-thirds more likely to be spatially isolated from non-Hispanic Whites across municipal boundaries in 2000 than they were in 1990. Changing residential separation in these counties is in striking contrast to that of established Hispanic counties, which, on average, exhibited geographic equilibrium between the two groups.

As noted earlier, municipal boundaries often represent economic and social dividing lines between groups that may heavily influence social service availability and opportunity for economic development on the one hand, and property values and local taxes on the other. The experience of nonmetro Blacks, who migrated in significant numbers to towns and cities following World War II, suggests that other nonmetro minority groups may similarly seek social, economic, and political support within the legal and political environment of places (Aiken, 1990). This occurs as non-Hispanic Whites leave those same places, sometimes in response to such population trends.

Figure 14

### Residential separation in places within counties, Hispanics and non-Hispanic Whites, by county type, 1990-2000<sup>1</sup>

Dissimilarity Index (*D*)



<sup>1</sup>As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

Note: *D* measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of *D*, the less evenly distributed the two groups are.

Source: Economic Research Service/USDA.



The *D* values do not distinguish between residential separation caused by the place-level clustering of Hispanics versus the outmigration of non-Hispanic Whites; in these places, either trend could produce the increase in residential separation shown.

The distribution of Hispanics and non-Hispanic Whites among places of varying sizes in high-growth Hispanic counties as of 2000 suggests a pattern similar to one observed between Blacks and Whites in the nonmetro South from 1970 to 1990 (Cromartie and Beale, 1996). Hispanics are more likely to live in larger towns and cities, while non-Hispanic Whites tend to concentrate outside of Census-defined places (fig. 15). Both of these trends increased during the 1990s (Cromartie and Kandel, 2002).

Several reasons may explain these differences, but one likely explanation is economic. In high-growth Hispanic counties, non-Hispanic Whites have significantly higher average incomes than Hispanics, allowing them to purchase newer and larger houses with larger properties. Such housing, however, tends to be found outside of towns and small cities, where traditional neighborhoods are residentially more dense. By contrast, Hispanics in these high-growth counties have less time in the United States than Hispanics elsewhere (table 4) which, combined with lower earning power, increases the likelihood they will live with or near relatives and friends in more crowded housing until they can afford their own. Nevertheless, the data raise broader concerns over whether Whites in these counties are moving away from places in reaction to an influx of Hispanics.

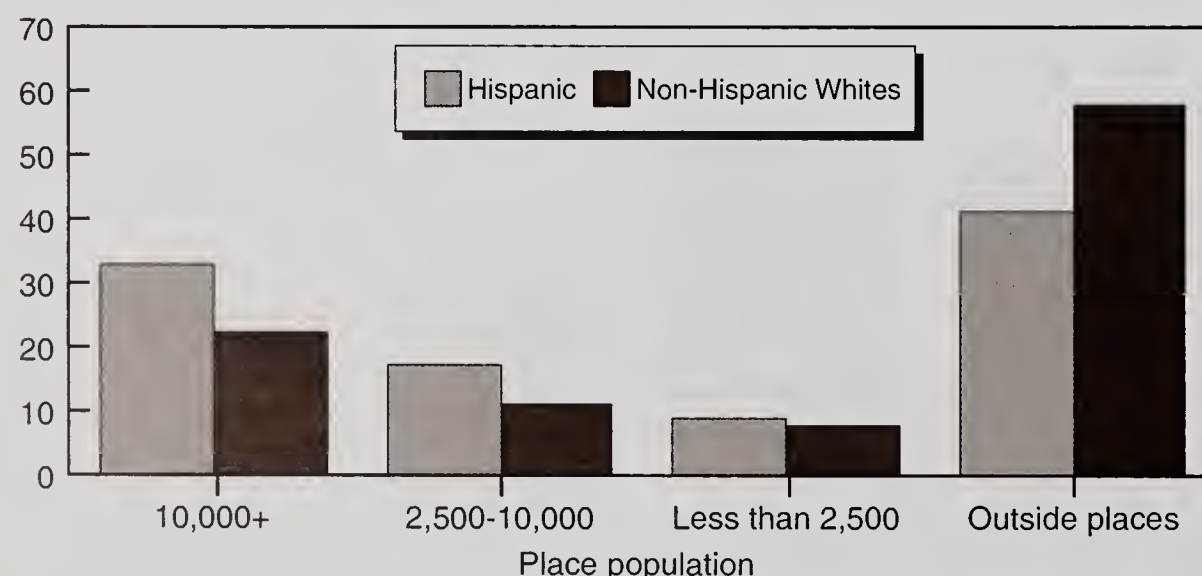
### Residential Separation among Neighborhoods Within Places

Measuring residential separation at the Census tract level is similar to the more traditional measurement of neighborhood segregation within urban

Figure 15

#### Population distribution in high-growth Hispanic counties, by place population, 2000<sup>1</sup>

Percent



<sup>1</sup>As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

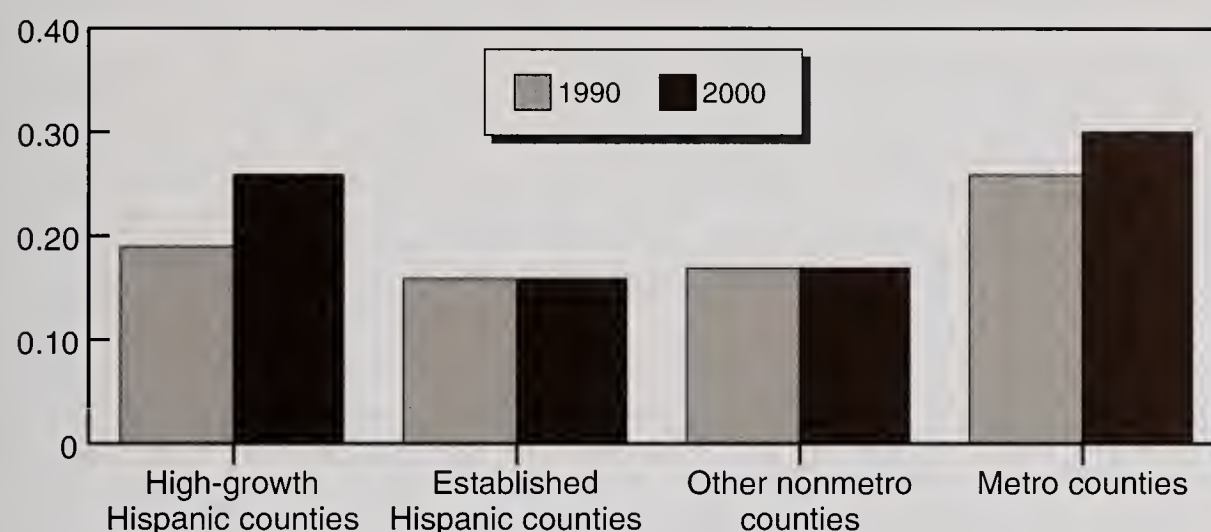
Source: Economic Research Service/USDA.



Figure 16

# **Residential separation in neighborhoods within places, Hispanics and non-Hispanic Whites, by county type, 1990-2000<sup>1</sup>**

Dissimilarity Index (D)



<sup>1</sup>As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

Note: D measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of D, the less evenly distributed the two groups are. In this figure, D equals the average of county D values within each county type.

Source: Economic Research Service/USDA.

areas. Here the incorporated place acts as the area and Census tracts function as subareas. Between 1990 and 2000, dissimilarity levels remained stable for established Hispanic counties and other nonmetro counties, but increased for high-growth Hispanic and metro counties (fig. 16). The increase in residential separation between Hispanics and non-Hispanic Whites in high-growth Hispanic counties between 1990 and 2000 points to greater separation associated with rapid demographic change. This finding differs from those of Hwang and Murdock (1983) and Murdock et al. (1994), whose analyses of Texas indicated that population growth from 1980-90 had reduced segregation at the place level.

Spatial separation between Hispanics and non-Hispanic Whites in neighborhoods within metro places remains relatively high compared with nonmetro places, and is consistent with earlier findings (Iceland et al., 2002). This results partly from differing sizes of rural and urban Census tracts. Because these tracts are larger in nonmetro counties, values for *D* are less likely to capture the same level of residential separation found between groups for similarly populated tracts in metro counties. However, metro and nonmetro residential separation patterns may also be capturing very different social and geographic processes that limit what can be deduced from comparisons of the two.

The increase in residential separation in high-growth Hispanic counties resembles more the situation in metro areas than in the other nonmetro county types. However, a stronger explanatory role must be given to rapid population change itself and to the striking socioeconomic characteristics of the new residents in these counties. Given influxes of new ethnic minorities, many of whom have little U.S. experience, skewed age and sex distributions, low schooling levels, and weak English language proficiency, it is not

surprising to find a rapidly rising, high level of separation in the initial stages of settlement.

At rates measured here, residential separation patterns between nonmetro Hispanics and non-Hispanic Whites, at least in high-growth counties, are beginning to resemble settlement patterns of many groups in metro areas and Blacks in parts of the rural South. If they follow patterns of Blacks in the rural South, nonmetro communities with high Hispanic populations may face similar outcomes: declining status as retail centers, growing dependence on government assistance, and inadequate schooling and transportation. Whether counties with growing Hispanic populations face such a future depends on several factors that are hard to predict. These include the continued availability of low-wage jobs, the extent of economic mobility among Hispanics and their children, future demographic change, incorporation processes in those communities, and the extent to which nonmetro counties and cities take steps to maintain and create healthy communities in the face of increasing ethnic diversity.



## Conclusions and Implications

Since 1990, the pace of Hispanic population growth in nonmetro counties has surprised many demographers and challenged local officials and policy-makers. This report has reviewed some causes and examined the extent of recent Hispanic population and dispersion in nonmetropolitan counties of the United States. We have compared the socioeconomic profiles of Hispanics residing in all U.S. counties, emphasizing differences among counties characterized by rapidly growing and established Hispanic populations that may illustrate future prospects for social and economic integration of rural Hispanics. High-growth Hispanic counties often include significant percentages of recent migrants whose socioeconomic profiles contrast sharply with those of native Hispanic and non-Hispanic White residents. Accordingly, we have analyzed residential separation patterns at the county, place, and neighborhood levels. Where appropriate, we have compared these outcomes with those of metro counties to provide a basis for understanding settlement patterns in rural areas compared with more familiar urban patterns.

Hispanics remain among the most urbanized ethnic/racial groups in America, with over 90 percent living in metro areas in 2000. Moreover, they continue to be concentrated in the Southwest. Yet, nonmetro Hispanic growth in the 1990s was much greater and more widespread than in previous decades and appeared in hundreds of rural communities throughout the Southeast, Midwest, and Northwest. The growth was both more dispersed and more concentrated than for non-Hispanics because, while almost all nonmetro counties experienced Hispanic population growth, 30 percent of this growth occurred in the 149 counties whose Hispanic population growth rates exceeded 150 percent.

Hispanic newcomers have forged communities in areas unaccustomed to seeing large numbers of foreign-born, particularly in the rapidly growing Hispanic counties of the Southeast and Midwest highlighted in this report. Hispanics in these counties include disproportionate numbers of young men who come from rural communities in economically depressed regions of Mexico and begin migrating as single teenagers or young adults without documentation. Such recent migrants typically have relatively fewer years of formal education and often speak little English. Despite these disadvantages, employment rates among Hispanics in high-growth nonmetro counties exceed those of all other nonmetro Hispanics and non-Hispanic Whites.

Hispanic population dispersion into new nonmetro destinations reduced levels of residential separation at the national level between Hispanics and non-Hispanic Whites between 1990 and 2000, corresponding to a similar reduction within metro counties. However, increased residential separation among Census-defined places within counties became evident, especially in high-growth counties; Hispanics are more concentrated in these places than non-Hispanic Whites, and place separation increased during the 1990s. Among neighborhoods within places, separation increased within high-growth Hispanic counties despite rapid growth of both Hispanics and non-Hispanic Whites.

Substantial empirical research on segregation demonstrates the importance of location for the distribution of public resources and less tangible public goods. If separation systematically restricts access to these resources for some population groups, the impact can be significant over the long term. Moreover, separation can have negative community effects. Numerous cases of urban “White flight” in previous decades illustrate how the depopulation of neighborhoods and even entire towns of typically better educated and higher income individuals leaves behind increasingly concentrated minority populations whose lower earnings reduce the tax base necessary for adequate social services. While large cities may have sufficiently diverse populations and industries to absorb such shifts in population, rural places are less likely to be insulated from changes posed by rapid demographic shifts. These issues will be magnified in scope and importance as Hispanics increasingly populate nonmetro counties.

How Hispanics are viewed in new rural destinations depends on one’s vantage point. Hispanic population growth has helped to stem decades of population decline in some States, revitalizing many rural communities with new demographic and economic vigor. Such population infusions may affect the allocation of State and Federal program funding to rural areas for education, health, other social services, and infrastructure projects. In addition to increasing the local tax base and spending money on local goods, services, and housing, recent migrant workers may fill labor market demands that otherwise might force employers to relocate domestically or internationally, or even abandon certain industries. Finally, new migrants clearly provide social and cultural diversity that introduces native residents to new cultures, languages, and cuisine.

Yet, many rural communities are unprepared, economically and culturally, for significant numbers of culturally distinct, low-paid newcomers who seek inexpensive housing, require distinct social services, and struggle to speak English. Residents in many rural communities have little experience with people of different backgrounds, and numerous popular reports suggest pervasive social conflict among communities that have experienced rapid influxes of Hispanic residents. While Hispanics in new destinations often work in relatively more dangerous or less well-paid industries than native workers, their presence in the labor market may exert downward pressure on local wage rates even in comparatively skilled industries (Newman, 2003).

Moreover, sizable increases in the Hispanic proportion of the total population can significantly affect empirical socioeconomic measures for the broader population. To cite one example, in five high-growth Hispanic counties where the Hispanic proportion of the population increased from under 10 percent in 1990 to over 25 percent in 2000, the proportion of males over 25 with less than a ninth-grade education averages 20 percent. The same proportion for the non-Hispanic population alone drops to 8 percent. Future research will expand on the extent to which such findings can be generalized to other measures of socioeconomic well-being.

In some respects, the challenges that communities face in addressing the needs of newcomers are intrinsic to international labor migration itself. The complicated process of labor migration, including limited skill demands, arduous working conditions, and relatively low wages of many migrant jobs,



means that recent migrants are often self-selected simultaneously for “favorable” characteristics such as initiative and youth, and “unfavorable” characteristics, such as lower education attainment. However, it is also important to remember that the term “Hispanic,” as used in this report, encompasses a wide range of experience, ranging from families having lived generations in the United States to recently arrived migrants whose experience we have emphasized in this report.

Prospects for Hispanics in rural America hinge on the same mechanisms for social and economic mobility utilized by earlier generations of U.S. immigrants. These include acquiring legal status, U.S. work experience, English skills, training, and education, as well as overcoming discrimination and prejudice. Long-term prospects for Hispanic social and economic mobility, on the other hand, depend critically on the degree to which the educational attainments of Hispanic children match those of their peers. Local communities and States can address some of these issues in public policies targeted toward helping new residents acquire information about basic public services, such as education, health care, transportation, and U.S. laws; many States have already done so. In some cases, States have established formal programs that help new residents acclimate to their civic environment. As their experience in the United States increases, they will become socially and economically integrated through various mechanisms, including the acquisition of English language skills and legal status acquired through sponsorship, marriage, and amnesty programs.

In rural America, these circumstances occur against the backdrop of an aging, mostly White, baby-boomer population that will increasingly rely upon the productivity, health, and civic participation of Hispanic children as boomers begin retiring in large numbers in the coming decades. Consequently, the social and economic adaptation, integration, and mobility of new rural residents and their children are critical public policy issues that merit attention of social scientists and policy analysts.

## References

- Aiken, Charles S. 1990. "A New Type of Black Ghetto in the Plantation South." *Annals of the Association of American Geographers*. 80:223-46.
- Alba, R.D., and J.R. Logan. 1993. "Minority Proximity to Whites in Suburbs: An Individual-level Analysis of Segregation." *American Journal of Sociology*. 98:1388-1427.
- Allen, James P., and Eugene Turner. 1996. "Spatial Patterns and Immigrant Assimilation." *Professional Geographer*. 48:140-55.
- \_\_\_\_\_. 2001. "Bridging 1990 and 2000 Census Race Data: Fractional Assignment of Multiracial Populations." *Population Research and Policy Review*. 20(6):513-33.
- Allensworth, Elain M., and Refugio I. Rochín. 1998. "Ethnic Transformation in Rural California: Looking Beyond the Immigrant Farmworker." *Rural Sociology*. 63:26-50.
- Anderson, Elijah, and Douglas Massey (eds.). 2001. *Problem of the Century: Racial Stratification in the United States*. New York, NY: Russell Sage Foundation.
- Atilas, Jorge H., and Stephanie A. Bohon. 2002. "The Needs of Georgia's New Latinos: A Policy Agenda for the Decade Ahead." *Public Policy Research*. 3:1-51.
- Atilas, Jorge H., and Stephanie A. Bohon. "Camas Calientes: Housing Adjustments and Barriers to Adaptation among the South's Rural Latinos." *Rural Southern Sociology*. Forthcoming.
- Bean, Frank D., and Marta Tienda. 1987. *The Hispanic Population of the United States*. New York, NY: Russell Sage Foundation.
- Borjas, George. 1999. *Heaven's Door: Immigration Policy and the American Economy*. Princeton, NJ: Princeton University Press.
- Broadway, Michael J. 1994. "Hogtowns and Rural Development." *Rural Development Perspectives*. 9(2):40-46.
- Broadway, Michael J. 1995. "From City to Countryside: Recent Changes in the Structure and Location of the Meat- and Fish-Processing Industries." In D. Stull, M. Broadway, and D. Griffith (eds.), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence, KS: University Press of Kansas.
- Burstein, Alan N. 1981. "Immigrants and Residential Mobility: The Irish and Germans in Philadelphia, 1850-1880." In Theodore Hershberg (ed.), *Philadelphia: Work, Space, Family, and Group Experience in the 19<sup>th</sup> Century*. New York, NY: Oxford University Press.
- Card, David, and John DiNardo. 2000. "Do Immigrant Inflows Lead to Native Outflows?" *American Economics Review*. (Proceedings). 90(2):360-367.
- Carliner, Geoffrey. 1980. "Wages, Earnings, and Hours of First, Second, and Third Generation American Males." *Economic Inquiry*. 18:87-102.



- Chavez, Leo. 1998. *Shadowed Lives: Undocumented Immigrants in American Society*, 2<sup>nd</sup> Edition. Fort Worth, TX: Harcourt, Brace, Jovanovich College Publishers.
- Chiswick, Barry R. 1978. "The Effect of Americanization on the Earnings of Foreign-Born Men." *Journal of Political Economy*. 86:897-921.
- Chiswick, Barry R., and Paul W. Miller. 1995. "The Endogeneity Between Language and Earnings: International Analyses." *Journal of Labor Economics*. 13:246-88.
- Clark, William. 1998. *The California Cauldron: Immigration and the Fortunes of Local Communities*. New York, NY: Guilford Press.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology*. 94S:S95-S120.
- Council of Economic Advisors. 2000. *Educational Attainment and Success in the New Economy: An Analysis of Challenges for Improving Hispanic Students' Achievement*. Washington, DC.
- Cromartie, John. 2003. "Measuring Rurality." Economic Research Service, U.S. Department of Agriculture. <http://www.ers.usda.gov/briefing/Rurality/>.
- Cromartie, John, and Calvin Beale. 1996. "Increasing Black-White Separation in the Plantation South, 1970-90." In Linda L. Swanson (ed.), *Racial/Ethnic Minorities in Rural Areas: Progress and Stagnation, 1980-90*. Agriculture Economic Report No. 731. Economic Research Service, U.S. Department of Agriculture.
- Cromartie, John, and William Kandel. 2002. "Did Residential Segregation in Rural America Increase with Recent Hispanic Population Growth?" Poster presented at the Meetings of the Population Association of America, Atlanta, GA, May 8-11.
- Dale, Jack G., Susan Andriatta, and Elizabeth Freeman. 2001. "Language and the Migrant Worker Experience in Rural North Carolina Communities." In A. Murphy, C. Blanchard and J.A. Hill (eds.), *Latino Workers in the Contemporary South*. Athens, GA: University of Georgia Press.
- Donato, Katharine, Carl L. Bankston, and Dawn T. Robinson. 2001. "Immigration and the Organization of the Onshore Oil Industry: Southern Louisiana in the Late 1990s." In Murphy, A., C. Blanchard, and J. A. Hill (eds.), *Latino Workers in the Contemporary South*. Athens, GA: University of Georgia Press.
- Downs, Barbara. 2003. "Fertility of American Women: June 2002." *Current Population Reports* P20-548. U.S. Census Bureau.
- Durand, Jorge, Douglas Massey, and Fernando Charvet. 2000. "The Changing Geography of Mexican Immigration to the United States: 1910-1996." *Social Science Quarterly*. 81:1-16.
- Engstrom, James D. 2001. "Industry and Immigration in Dalton, Georgia." In A. Murphy, C. Blanchard, and J.A. Hill (eds.), *Latino Workers in the Contemporary South*. Athens, GA: University of Georgia Press.

- Farley, Reynolds, and Walter R. Allen. 1987. *The Color Line and the Quality of Life in America*. New York, NY: Russell Sage Foundation.
- Fennelly, Katherine, and Helga Leitner. 2002. "How the Food Processing Industry is Diversifying Rural Minnesota." Working Paper 59. The Julien Samora Research Institute, Michigan State University.
- Frey, William H. 1995. "Immigration and Internal Migration 'Flight' from U.S. Metropolitan Areas: Toward a New Demographic Balkanisation." *Urban Studies*. 32:733-57.
- \_\_\_\_\_. 1996. "Immigration, Domestic Migration, and Demographic Balkanization in America: New Evidence for the 1990s." *Population & Development Review*. 22:741-63.
- \_\_\_\_\_. 1998. "The Diversity Myth." *American Demographics*. 20(6):38-43.
- Frey, William H., and Kao-Lee Liaw. 1998a. "Immigrant Concentration and Domestic Migrant Dispersal: Is Movement to Nonmetropolitan Areas "White Flight?" *Professional Geographer*. 50(2):215-32.
- \_\_\_\_\_. 1998b. "The Impact of Recent Immigration on Population Redistribution Within the United States." In James P. Smith and Barry Edmonston (eds.), *The Immigration Debate: Studies on the Economic, Demographic, and Fiscal Effects of Immigration*. Washington, DC: National Academy of Sciences Press.
- Fuguitt, Glenn V., David L. Brown, and Calvin L. Beale. 1989. *Rural and Small-town America*. New York, NY: Russell Sage Foundation.
- General Accounting Office. 1998. "Changes in Nebraska's and Iowa's Counties with Large Meatpacking Plant Workforces." GAO/RCED-98-62.
- Gordon, M. 1964. *Assimilation in American Life*. New York, NY: Oxford University Press.
- Gouveia, Lourdes, and Donald Stull. 1995. "Dances with Cows: Beefpacking's Impact on Garden City, KS, and Lexington, NE. In D. Stull, M. Broadway, and D. Griffith (eds.), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence, KS: University Press of Kansas.
- Granovetter, M. 1973. "The Strength of Weak Ties." *American Journal of Sociology*. 78:1360-1380.
- Grey, Mark A. 1995. "Pork, Poultry, and Newcomers in Storm Lake, Iowa." In D.D. Stull, M. J. Broadway, and D. Griffith (eds.), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence, KS: University Press of Kansas.
- Griffith 1995. "New Immigrants in an Old Industry: Blue Crab Processing in Pamlico County, North Carolina." In D.D. Stull, M.J. Broadway, and D. Griffith (eds.), 1995. *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence, KS: University Press of Kansas.
- Guthey, Greig. 2001. "Mexican Places in Southern Spaces: Globalization, Work and Daily Life in and around the North Georgia Poultry Industry."



- In Murphey, A., C. Blanchard, and J. A. Hill (eds.), *Latino Workers in the Contemporary South*. Athens, GA: University of Georgia Press.
- Guzmán, Betsy. 2001. "The Hispanic Population: Census 2000 Brief." U.S. Census Bureau.
- Haverluk. 1998. "Hispanic Community Types and Assimilation in Mex-America." *Professional Geographer*. 50:465-80.
- Hernandez, Donald J. (ed.). 1999. *Children of Immigrants: Health, Adjustment, and Public Assistance*. Washington, DC: National Academy Press.
- Hernandez, Donald J., and Evan Charney. 1998. *From Generation to Generation: The Health and Well-Being of Children in Immigrant Families*. Washington, DC: National Academy Press.
- Hernández-León, Rubén, and Víctor Zúñiga. 2000. "'Making Carpet by the Mile:' The Emergence of a Mexican Immigrant Community in an Industrial Region of the U.S. Historic South." *Social Science Quarterly*. 81:49-66.
- Hwang, Sean-Shong, and Steven H. Murdock. 1983. "Segregation in Nonmetropolitan and Metropolitan Texas in 1980." *Rural Sociology*. 48:607-23.
- Iceland, John, Daniel H. Weinberg, and Erika Steinmetz. 2002. "Racial and Ethnic Residential Segregation in the United States: 1980-2000." Census 2000 Special Report CENSR-3. U.S. Census Bureau.
- Ise, Sabrina, and Jeffrey Perloff. 1993. "Legal Status and Earnings of Agricultural Workers." University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper 680.
- Jamieson, Amie, Hyon B. Shin, and Jennifer Day. 2002. "Voting and Registration in the Election of November 2000: Population Characteristics." *Current Population Reports* P20-542. U.S. Census Bureau.
- Johnson, Hans P., Belinda I. Reyes, Laura Mameesh, and Elisa Barbour. 1999. *Taking the oath: an analysis of naturalization in California and the United States*. San Francisco, CA: Public Policy Institute of California.
- Johnson-Webb, Karen D. 2002. "Employer Recruitment and Hispanic Labor Migration: North Carolina Urban Areas at the End of the Millennium." *The Professional Geographer*. 54(3):406-421.
- Jones, Gaytha. 2003. *Migrant Services Directory: Organizations and Resources*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Kandel, William. 2002. "A Profile of U.S. Agricultural Migrant Workers Using Mexican Migration Project Data." Presented at the Binational Conference on Mexico-U.S. Migration, Puerto Vallarta, Mexico, March.
- \_\_\_\_\_. 2003a. "Race and Ethnicity in Rural America." Economic Research Service, U.S. Department of Agriculture.  
<http://www.ers.usda.gov/Briefing/RaceandEthnic/>.

- \_\_\_\_\_. 2003b. "The Impact of U.S. Migration on Mexican Children's Educational Attainment." In M. Cosio, R. Marcoux, M. Pilon, and A. Quesnel (eds.), *Education, Family and Population Dynamics*. Paris: CICRED.
- Kandel, William, and Emilio Parrado. "Industrial Transformation and Hispanic Migration to the American South: The Case of the Poultry Industry." In D.D. Arreola (ed.), *Hispanic Spaces, Latino Places: A Geography of Regional and Cultural Diversity*. Austin, TX: University of Texas Press. Forthcoming.
- Kossoudji, Sherrie A., and Deborah A. Cobb-Clark. 2002. "Coming Out of the Shadows: Learning about Legal Status and Wages from the Legalized Population." *Journal of Labor Economics*. 20(3):598-628.
- Kozol, Jonathan. 1991. *Savage Inequalities: Children in America's Schools*. New York, NY: Crown Publishers.
- Krissman, Fred. 2000. "Immigrant Labor Recruitment: U.S. Agribusiness and Undocumented Migration from Mexico." In N. Foner, R. Rumbaut, and S. Gold (eds.), *Immigration Research for a New Century*. New York, NY: Russell Sage.
- Lichter, Daniel T., and Tim B. Heaton. 1986. "Black Composition and Change in the Nonmetropolitan South." *Rural Sociology*. 5:343-53.
- Lichter, Daniel T., Tim B. Heaton, and Glenn V. Fuguitt. 1986. "Convergence in Black and White Population Redistribution in the United States." *Social Science Quarterly*. 67:21-38.
- Liebertson, Stanley. 1961. "The Impact of Residential Segregation on Assimilation." *Social Forces*. 40:52-57.
- Martin, Philip L., and David A. Martin. 1994. *The Endless Quest: Helping America's Farm Workers*. Boulder, CO: Westview Press.
- Massey, Douglas S. 1985. "Ethnic Residential Segregation: A Theoretical Synthesis and Empirical Review." *Sociology and Social Research*. 69:315-50.
- \_\_\_\_\_. 1987. "Trends in the Residential Segregation of Blacks, Hispanics, and Asians: 1970-1980." *American Sociological Review*. 52:802-25.
- \_\_\_\_\_. 1990. "American Apartheid: Segregation and the Making of the Underclass." *American Journal of Sociology*. 96:329-57.
- Massey, Douglas S., Rafael Alarcón, Jorge Durand, and Humberto González. 1987a. *Return To Aztlan*. Berkeley, CA: University of California.
- Massey, Douglas S., Gretchen A. Condran, and Nancy A. Denton. 1987b. "The Effect of Residential Segregation on Black Social and Economic Well-Being." *Social Forces*. 66:29-57.
- Massey, Douglas S., and Nancy Denton. 1988. "The Dimensions of Residential Segregation." *Social Forces*. 67:281-315.
- \_\_\_\_\_. 1993. *American Apartheid: Segregation and the Making of the Underclass*. Cambridge, MA: Harvard University Press.



- Massey, Douglas S., Jorge Durand, and Nolan Malone. 2002. *Beyond Smoke and Mirrors: Mexican Immigration in an Era of Economic Integration*. New York, NY: Russell Sage.
- Massey, Douglas S., Andrew B. Gross, and Mitchell L. Eggers. 1991. "Segregation, the Concentration of Poverty, and the Life Chances of Individuals." *Social Science Research*. 20:397-420.
- McDaniel, J.M., and V. Casanova. 2003. "Pines in Lines: Tree Planting, H2B Guest Workers, and Rural Poverty in Alabama." *Southern Rural Sociology*. Forthcoming.
- Montejano, David. 1987. *Anglos and Mexicans in the Making of Texas, 1836-1986*. Austin, TX: University of Texas Press.
- Mosisa, Abraham T. 2002. "The Role of Foreign-born Workers in the U.S. Economy." *Monthly Labor Review*. May:3-14.
- Murdock, Steve H., Sean-Shong Hwang, and Md. Nazrul Hoque. 1994. "Nonmetropolitan Residential Segregation Revisited." *Rural Sociology*. 59:236-54.
- Myrdal, Gunnar. 1944. *An American Dilemma*. New York, NY: Harper and Brothers.
- Neidert, L.J., and R. Farley. 1985. "Assimilation in the United States: An Analysis of Ethnic and Generational Differences in Status." *American Sociological Review*. 50:840-49.
- Nelli, Humbert S. 1970. *Italians in Chicago, 1880-1930: A Study in Ethnic Mobility*. New York, NY: Oxford University Press.
- Newman, Constance. 2003. "Impacts of Hispanic Population Growth on Rural Wages." Agricultural Economic Report No. 826. Economic Research Service, U.S. Department of Agriculture.
- Phillips, Julie, and Douglas Massey. 1999. "The New Labor Market: Immigrants and Wages After IRCA." *Demography*. 36(2):233-46.
- Portes, Alejandro. 1998. "Social capital: its origins and applications in modern sociology." *Annual Review of Sociology*. 24:1-24.
- Portes, Alejandro, and Rubén G. Rumbaut. 2001. *Legacies: The Story of the Immigrant Second Generation*. Berkeley, CA: University of California Press, and New York, NY: Russell Sage Foundation.
- Rathge, Richard, and Paula Highman. 1998. "Population Change in the Great Plains: A History of Prolonged Decline." *Rural Development Perspectives*. 13(1):19-26.
- Rochin, Refugio I. 1995. "Rural Latinos: Evolving Conditions and Issues." In E. Castle (ed.), *The Changing American Countryside: Rural People and Places*. Lawrence, KS: University Press of Kansas.
- Salamon, Sonya. 2003. *Newcomers to Old Towns: Suburbanization of the Heartland*. Chicago, IL: University of Chicago Press.

- Schneider, Mark, and John R. Logan. 1982. "Suburban Racial Segregation and Black Access to Local Public Resources." *Social Science Quarterly*. 63:762-70.
- Schoeni, Robert F., Kevin F. McCarthy, and George Vernez. 1996. *The Mixed Economic Progress of Immigrants*. Santa Monica, CA: RAND Corporation.
- Spear, Allen H. 1967. *Black Chicago: The Making of a Negro Ghetto*. Chicago, IL: University of Chicago Press.
- Stepick, Alex, Guillermo Grenier, Steve Morris, and Debbie Draznin. 1994. "Brothers in Wood." In L. Lamphere, A. Stepick, and G. Grenier (eds.), *Newcomers in the Workplace: Immigrants and the Restructuring of the U.S. Economy*. Philadelphia, PA: Temple University Press.
- Suárez-Orozco, Carola, and Marcelo Suárez-Orozco. 1995. *Transformations: Migration, Family Life, and Achievement Motivation Among Latino Adolescents*. Palo Alto, CA: Stanford University Press.
- Suro, Roberto, and Audrey Singer. 2002. "Latino Growth in Metropolitan America: Changing Patterns, New Locations." Washington, DC: Center on Urban and Metropolitan Policy, The Brookings Institution, and The Pew Hispanic Center.
- Thernstrom, Stephen. 1973. *The Other Bostonians: Poverty and Progress in the American Metropolis, 1880-1970*. Cambridge, MA: Harvard University Press.
- U.S. Census Bureau. 2000. *County Business Patterns*. <http://www.census.gov/epcd/cbp/view/cbpview.html/>.
- Ward, David. 1971. *Cities and Immigrants: A Geography of Change in Nineteenth Century America*. New York, NY: Oxford University Press.
- Wilson, William J. 1987. *The Truly Disadvantaged*. Chicago, IL: University of Chicago Press.
- Wright, Richard A., Mark Ellis, and Michael Reibel. 1997. "The Linkage Between Immigration and Internal Migration in Large Metropolitan Areas in the United States." *Economic Geography*. 73(2):234-53.
- Zunz, Olivier. 1982. *The Changing Face of Inequality: Urbanization, Industrial Development, and Immigrants in Detroit, 1880-1920*. Chicago, IL: University of



## Appendix: Rural Hispanics in Metro Counties

This report follows a widely accepted convention of using nonmetropolitan counties (defined by the Office of Management and Budget) as a proxy for “rural and small-town” America. The primary alternative is to use rural and urban areas, defined by the Census Bureau using population density criteria applied to much smaller geographical units (Cromartie, 2003). The metro-nonmetro county division is used because Federal agencies provide county-level data for certain demographic and economic characteristics on an annual basis, whereas data on the characteristics of rural and urban areas are available only from the decennial Censuses. Using nonmetro counties is an effective strategy for analyzing rural and small-town trends on a national scale and in most States. However, it does exclude rural residents in metro counties, a drawback that is particularly significant in large counties in the West.

The problem warrants discussion here because 1.2 million “rural metro” Hispanics are excluded from the analysis in this report. This group totals more than a third of the overall nonmetro Hispanic population. We focus to a large degree in this report on the situation of nonmetro Hispanics living in new, high-growth destinations outside the West, where this “exclusion” problem is not severe. However, throughout this report, comparisons are made with residents of established nonmetro Hispanic counties, and the exclusion causes severe truncation of this population group because large swaths of rural territory in the Southwest are located in metro counties.

Because this report uses 1990 and 2000 decennial Census data, it would have been technically possible to include the metro rural population in our analysis. However, between 1990 and 2000, the U.S. Census Bureau altered its urban and rural classification scheme, making it virtually impossible to measure *change* during the decade, either in rural population or residential separation (Cromartie, 2003).

Although located throughout the country, rural metro Hispanics tend to be concentrated in the Southwest. Just over half of rural metro Hispanics lived in Texas or California in 2000 (appendix table 1). Over 80 percent lived in 198 counties in which they numbered 1,000 or more (appendix fig. 1). Ninety-eight of these counties are in the 5 Southwestern States, including all but 2 of the 27 counties with 10,000 or more rural Hispanics. Metro counties in the Southwest average over 1,800 square miles, compared with the national average (outside Alaska) of just under 1,000 square miles. The 98 southwestern metro counties with large, rural Hispanic populations average over 2,000 square miles. Smaller concentrations of rural metro Hispanics outside the Southwest are found in counties in the Pacific Northwest and in Florida, Michigan, North Carolina, New York, New Jersey, and Pennsylvania.

Despite greater land area, rural areas in southwestern metro counties tend to be more sparsely populated than elsewhere, leaving a higher-than-average urban population share (93 percent urban versus 87 percent in metro counties elsewhere). In addition, Hispanics in general are more likely than non-Hispanics to live in urban settings. It is not surprising, then, that rural Hispanics made up just 5 percent of the overall Hispanic population in the 98 southwestern metro counties in 2000. However, Hispanics made up a

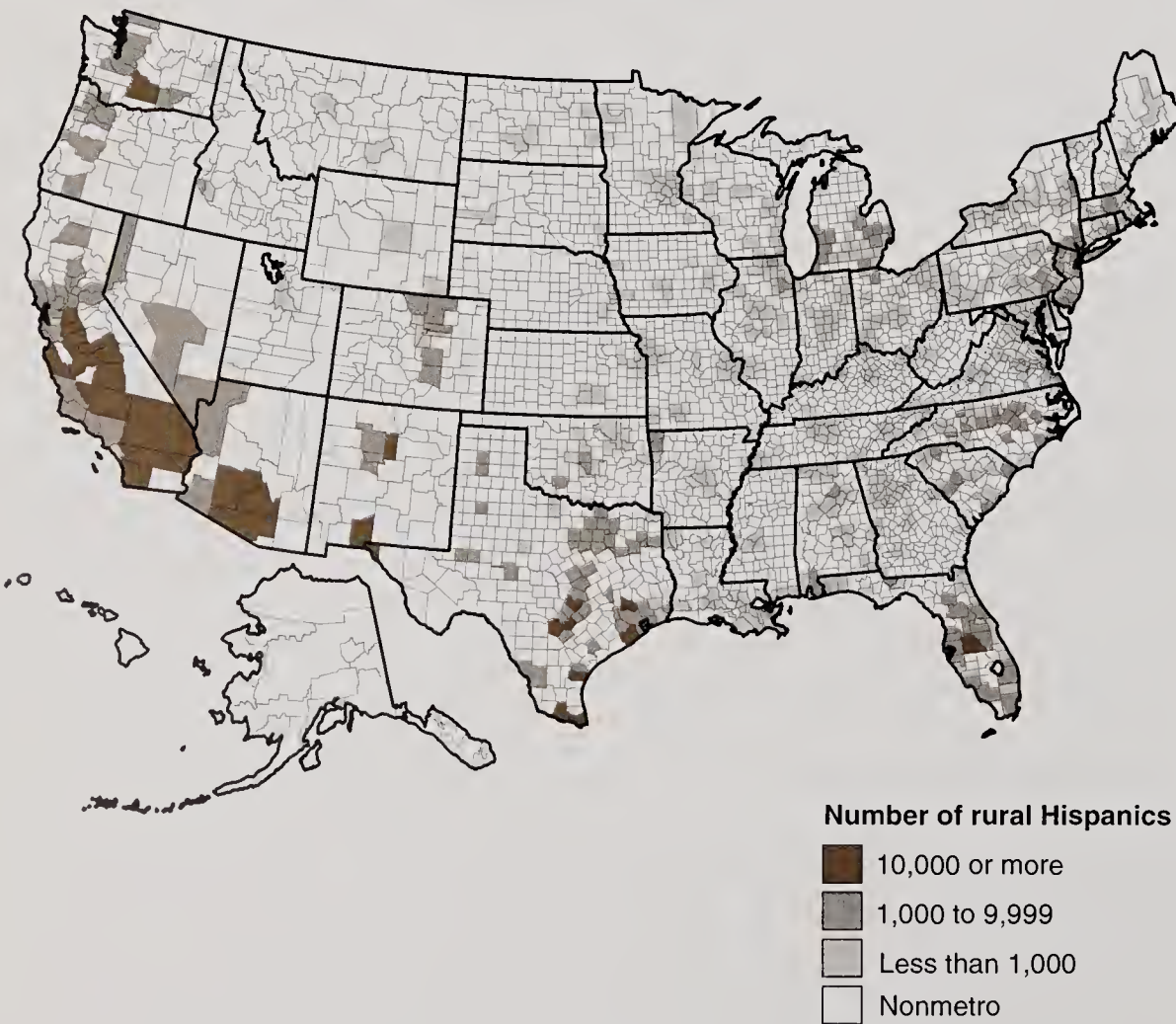
Appendix table 1—Characteristics of metropolitan counties and their rural populations, 2000

Region/State	Average area of metro counties	Total rural metro population	Total rural metro Hispanic population	Hispanic share of total rural metro population
	<i>Square miles</i>	<i>----Number----</i>		<i>Percent</i>
<b>Southwest</b>	1,831	4,051,032	797,213	20
Texas	846	1,947,115	354,906	18
California	2,658	1,427,888	305,357	21
Arizona	8,283	284,023	64,738	23
New Mexico	1,890	127,824	50,782	40
Colorado	1,468	264,182	21,430	8
<b>Outside Southwest</b>	629	22,147,505	440,032	2
Florida	935	1,105,445	81,428	7
North Carolina	457	1,494,474	42,169	3
Washington	1,550	583,172	39,037	7
Michigan	728	1,296,864	33,089	3
New York	647	1,441,154	26,803	2
All other States	76	16,226,396	217,506	1
<b>All 50 States</b>	791	26,198,537	1,237,245	5

Source: Compiled by ERS using Census 2000 data, SF1 files.

Appendix figure 1

Rural Hispanics living in metro counties, 2000



Source: Calculated by ERS using data from the U.S. Census Bureau.



significant share of the overall rural metro population in this region, as high as 40 percent in New Mexico (appendix table 1).

Many of these rural metro settings, especially in the Southwest and Florida, are highly agricultural areas, and Hispanics provide crucial labor input to large, industrialized agricultural operations found throughout these counties. For instance, in California metro counties with 1,000 or more rural Hispanics, the proportion of the total rural population employed in the agricultural sector (10 percent) is double that of rural residents of other metropolitan counties (5 percent) and five times the proportion for the total U.S. population (2 percent). The percentage of rural metro Hispanics working in agriculture in California is undoubtedly higher than 10 percent, but industry data broken down by race and ethnicity are not available.

Rural metro Hispanics are likely to face many of the same challenges that confront Hispanics living in new nonmetro destinations—relatively high poverty and social isolation, for example—yet differ noticeably in their levels of U.S. experience and occupational distribution. Given these differences, especially their importance to agricultural labor markets, rural metro Hispanics merit separate, indepth demographic research.

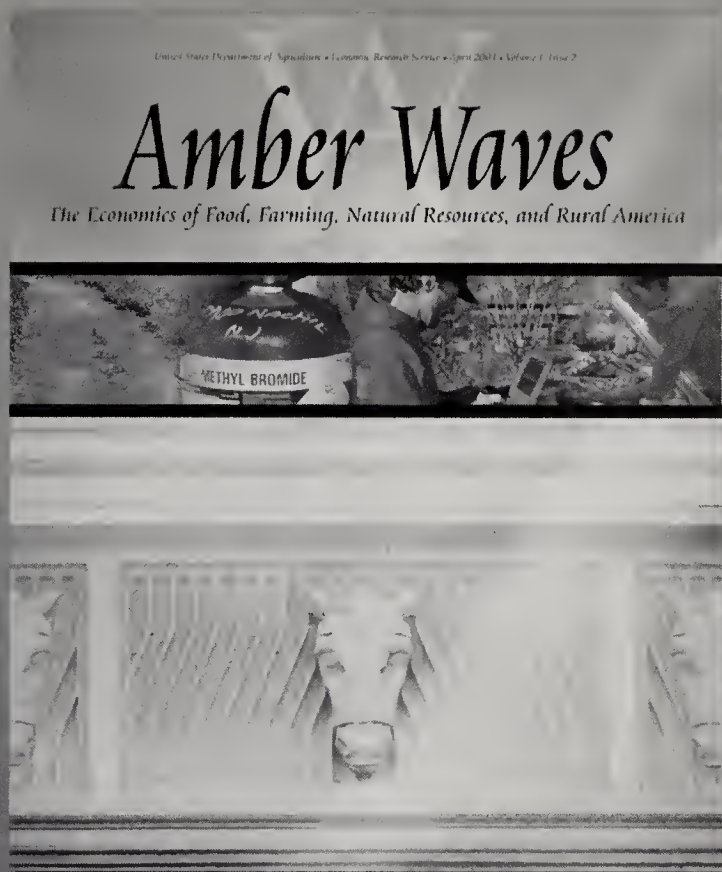
**Appendix table 2—States<sup>1</sup> with fastest growing nonmetro Hispanic populations, 1990-2000**

State	Hispanic nonmetro population			Total nonmetro population			Hispanic share	
	1990	2000	Change	1990	2000	Change	1990	2000
	----Number----		Percent	----Number----			----Percent----	
1 North Carolina	19,153	98,846	416	2,252,775	2,612,257	16	0.9	3.8
2 Alabama	5,582	26,155	369	1,330,857	1,453,233	9	0.4	1.8
3 Delaware	1,476	6,915	368	113,229	156,638	38	1.3	4.4
4 Tennessee	7,379	32,737	344	1,579,336	1,842,679	17	0.5	1.8
5 South Carolina	6,465	27,853	331	1,064,088	1,205,050	13	0.6	2.3
6 Georgia	29,543	124,296	321	2,126,654	2,519,789	18	1.4	4.9
7 Arkansas	9,933	36,504	268	1,310,724	1,434,529	9	0.8	2.5
8 Virginia	8,649	28,258	227	1,414,093	1,550,447	10	0.6	1.8
9 Minnesota	11,434	34,860	205	1,364,205	1,456,119	7	0.8	2.4
10 Indiana	13,253	36,921	179	1,581,713	1,690,582	7	0.8	2.2
11 Iowa	13,177	35,611	170	1,576,857	1,600,191	1	0.8	2.2
12 Kentucky	9,131	24,465	168	1,905,535	2,068,667	9	0.5	1.2
13 Mississippi	9,133	24,321	166	1,797,542	1,932,670	8	0.5	1.3
14 Nebraska	16,965	44,564	163	791,050	811,425	3	2.1	5.5
15 Pennsylvania	10,774	27,403	154	1,798,645	1,889,525	5	0.6	1.5
16 Missouri	11,281	27,807	146	1,626,202	1,800,410	11	0.7	1.5
17 Wisconsin	11,993	28,893	141	1,560,597	1,723,367	10	0.8	1.7
18 Washington	44,329	99,973	126	830,311	994,967	20	5.3	10.0
19 Florida	42,458	95,689	125	914,571	1,144,881	25	4.6	8.4
20 Utah	14,145	31,168	120	387,033	530,719	37	3.7	5.9
21 Maryland	3,496	6,958	99	342,581	385,446	13	1.0	1.8
22 Oregon	34,146	67,924	99	857,597	997,186	16	4.0	6.8
23 Kansas	43,484	86,016	98	1,144,646	1,167,355	2	3.8	7.4
24 Nevada	17,319	32,813	89	187,926	250,521	33	9.2	13.1
25 Connecticut	6,168	11,631	89	276,617	291,284	5	2.2	4.0
26 Oklahoma	29,166	54,881	88	1,275,743	1,352,292	6	2.3	4.1
27 South Dakota	2,804	5,206	86	475,425	493,867	4	0.6	1.1
28 Michigan	18,657	33,510	80	1,597,654	1,768,978	11	1.2	1.9
29 Idaho	35,533	63,768	79	710,898	861,608	21	5.0	7.4
30 Massachusetts	1,013	1,792	77	87,743	96,042	9	1.2	1.9
31 North Dakota	2,477	4,277	73	381,412	358,234	-6	0.6	1.2
32 Illinois	22,789	38,857	71	1,856,803	1,877,585	1	1.2	2.1
33 New Hampshire	2,405	3,854	60	423,101	465,353	10	0.6	0.8
34 Colorado	79,810	126,052	58	608,053	809,860	33	13.1	15.6
35 Vermont	2,326	3,644	57	385,699	409,938	6	0.6	0.9
36 California	180,393	275,669	53	961,303	1,121,254	17	18.8	24.6
37 Montana	7,618	11,344	49	607,955	692,486	14	1.3	1.6
38 New York	30,502	44,795	47	1,475,170	1,503,399	2	2.1	3.0
39 Rhode Island	1,712	2,409	41	87,194	85,433	-2	2.0	2.8
40 Arizona	97,209	133,073	37	559,476	719,952	29	17.4	18.5
41 Ohio	24,087	32,947	37	2,021,046	2,139,364	6	1.2	1.5
42 Texas	655,911	859,880	31	2,820,852	3,159,940	12	23.3	27.2
43 West Virginia	5,050	6,619	31	1,045,317	1,042,776	0	0.5	0.6
44 Maine	3,788	4,964	31	732,933	760,599	4	0.5	0.7
45 Alaska	8,545	11,053	29	323,705	366,649	13	2.6	3.0
46 New Mexico	233,414	292,788	25	673,385	783,991	16	34.7	37.3
47 Wyoming	16,189	19,515	21	319,220	345,642	8	5.1	5.6
48 Hawaii	24,506	28,970	18	271,998	335,381	23	9.0	8.6
49 Louisiana	15,648	17,505	12	1,060,433	1,098,766	4	1.5	1.6
Totals	1,902,418	3,175,953	67	50,897,902	56,159,326	10	4.0	5.6

<sup>1</sup> District of Columbia and New Jersey do not appear because they have no nonmetro counties.

Source: Calculated by ERS using data from 1990 and 2000 Censuses, SF1 files.





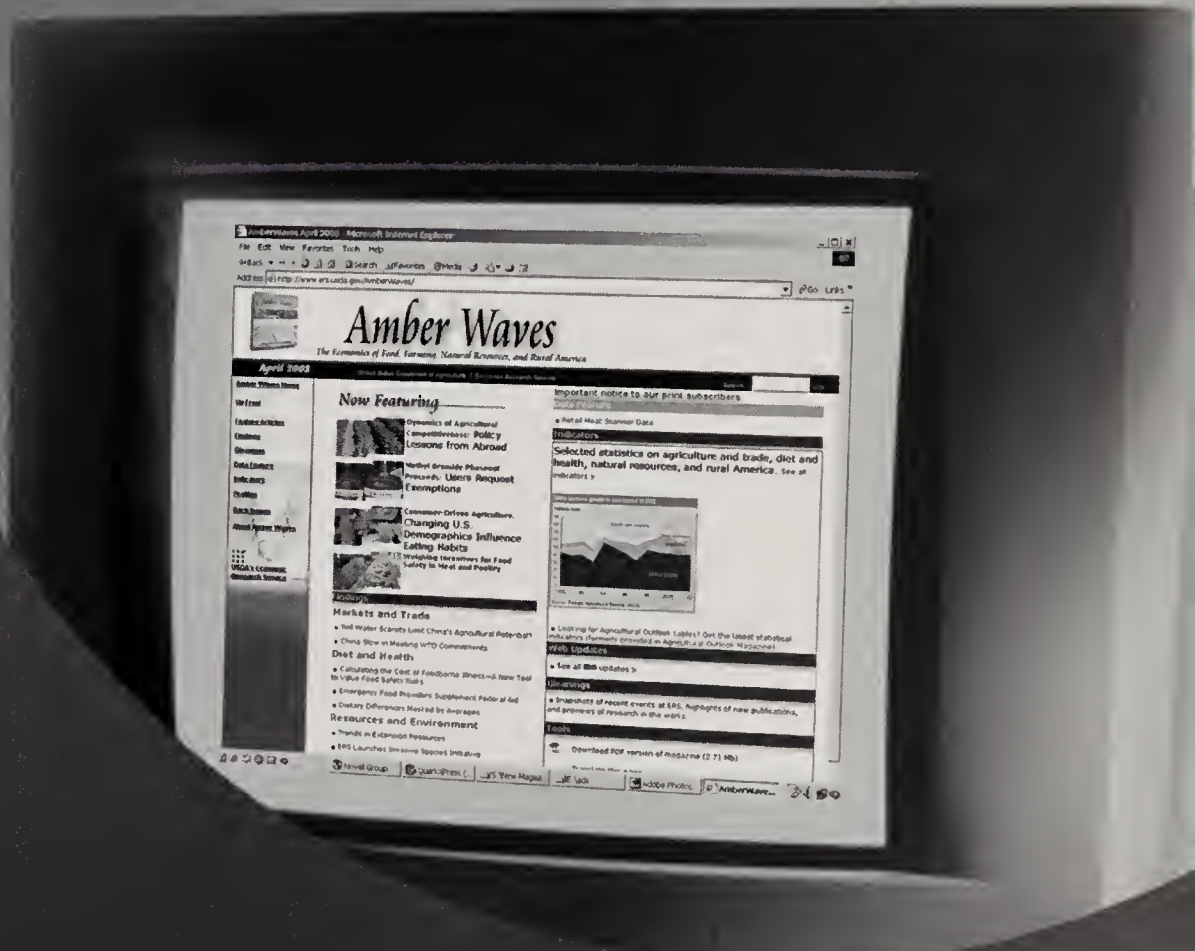
# Amber Waves

A new magazine from the  
Economic Research Service  
is available *in print*

Order the *Amber Waves* print edition for its easy-to-read, concise articles and attractive design. To order the print edition, call **1-800-999-6779** or **(703) 605-6060**.

**and on the Internet**

Access the **FREE** Internet edition for everything that's in print and more! Go to **[www.ers.usda.gov/AmberWaves](http://www.ers.usda.gov/AmberWaves)** and link directly to more detailed information on the ERS website.







1022606136

United States Department of Agriculture  
Economic Research Service  
1800 M Street, NW  
Washington, DC 20036-5831

[www.ers.usda.gov](http://www.ers.usda.gov)

